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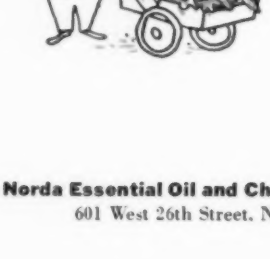
Drug and Cosmetic Industry

including packaging and selling

NORDA does what Nature does...
NORDA makes good scents



Always remember—
never forget . . .
Norda Makes Good Scents

The "shy and shrinking" violet is one of Nature's pretty things. Only Nature makes it.

Nature alone gives the Violet its slight and subtle fragrance. Norda, though, has worked well in creating violet odors. They have the delicate trueness, the right naturalness.

Depend on Norda for excellence. Use Norda concentrated quality to improve all your perfumed products—your aerosol mists, your deodorants, your colognes, soaps, toilet waters.

Send for generous free samples by a request on your letterhead.

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CHICAGO • LOS ANGELES • SAN FRANCISCO • TORONTO • MONTREAL • HAVANA • LONDON • PARIS • GRASSE • MEXICO CITY

Why you should use

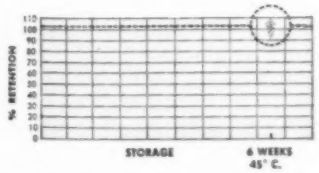
'ROCHE' { RIBOFLAVIN (vitamin B_2) / RIBOFLAVIN-5'-PHOSPHATE SODIUM

'ROCHE' VITAMIN B_2

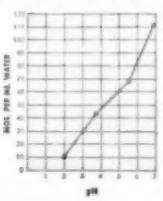
With the varied requirements for vitamin products in mind, Roche has developed three types of riboflavin to meet your formulating needs. As with all Roche vitamins, there are good reasons why you should specify riboflavin *'Roche'*. These again prove the wisdom of our statement: "It pays to stay with the leader."

A. THREE TYPES. Roche makes three types of riboflavin, each of which has special advantages for pharmaceutical manufacturers.

- **RIBOFLAVIN 'ROCHE'—REGULAR.** Especially useful for powdered dietary supplements, pharmaceutical tablets, soft gelatin capsules and dry enrichment premixes.
- **RIBOFLAVIN 'ROCHE'—SOLUTIONS TYPE.** For use in parenteral solutions which approach or slightly exceed the maximum solubility of B_2. Less likely to crystallize out.
- **RIBOFLAVIN-5'-PHOSPHATE SODIUM 'ROCHE'.** An original Roche development. Preferred for all solutions because it is rapidly and highly soluble. Better taste . . . no bitter after taste. Eliminates need for solubilizers. Specially valuable for highly concentrated oral and parenteral multivitamin solutions (with or without ascorbic acid), elixirs, syrups, water dispersible multivitamin formulations in capsules, tables, lozenges. Theoretical B_2 content: 73%. Roche product: 70-73%.



STABILITY in B-complex parenteral solutions with or without vitamin C.



SOLUBILITY in water at different pH levels; room temperature.

B. QUALITY. All riboflavin 'Roche' (Regular and Solutions Type) meets U.S.P. requirements. Riboflavin-5'-Phosphate Sodium 'Roche', for which no U.S.P. standards exist, meets the exacting production controls established by Roche for all of its vitamins. Roche uses its own synthesis in the manufacture of riboflavin.

C. UNIFORMITY IN COLOR. Uniform color of each type is maintained in Roche manufacturing.

D. STEADY SUPPLY. Roche makes vitamins, including riboflavin, by the tons. You are sure of steady supplies.

E. QUICK DELIVERY. Every order receives prompt, careful service from convenient points. Transportation at lowest rate allowed and prepaid to destination. Special routings at cost.

F. PACKAGING. Packed in polyethylene bags in ½ and 1 kilo tamperpruf metal containers and in fibre drums up to 20 kilos. Small quantities in amber s.c. glass bottles.

G. LEADERSHIP. Because of its position as a world-leader in research and production of vitamins you can rely on Roche.

H. NEED SAMPLES? Ask your Roche salesman or write the Vitamin Division for samples and technical literature.

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Drug and Cosmetic Industry

November 1955 Vol. 77 No. 5

feature articles

613 **Defending Drug Prices**

614 **Physiological Deodorants**
by Joseph Kalish, Ph.D.

616 **Infectious Mononucleosis**
by Arthur H. Bryan

618 **Protective Hand Preparations**
by Harry Hilfer

620 **Sugar-Free Tablet Coating**
by William H. Golod and C. Lee Huyck

622 **Surfactants in Shampoo Formulations**
by T. H. Elder, Jr. and Carl Pacifico

624 **The Drug Distribution Fight**

626 **Labeling of Cosmetics**
by Harold G. Goulden

628 **Research Looks at Advertising**
by Berton J. Todd

629 **Packaging and Selling Section**

633 **Selecting and Training Packaging Personnel**
by C. H. Parsons

637 **Avon Packaging Party for Suppliers**

departments

605 **Keeping Posted**
by Thomas R. Farrell

640 **Packaging and Selling**
by Frazer V. Sinclair

648 **News in Packaging**
by Frank S. Child

651 **Patent Thoughts and Trends**
by Thomas Cifelli, Jr.

657 **News**
by Frank S. Child

669 **Management Forum**
by Francis Chilson

679 **Compounder's Corner**
by Joseph Kalish, Ph.D.

683 **Advancing Therapy**
by Joseph Kalish, Ph.D.

688 **Perfumer's Shelf**
by Joseph Kalish, Ph.D.

691 **Skin Research**
by Joseph Kalish, Ph.D.

694 **Industry's Books**
by Harry G. Kelbly

696 **Readers' Questions**
by Joseph Kalish, Ph.D.

698 **Trade Literature**

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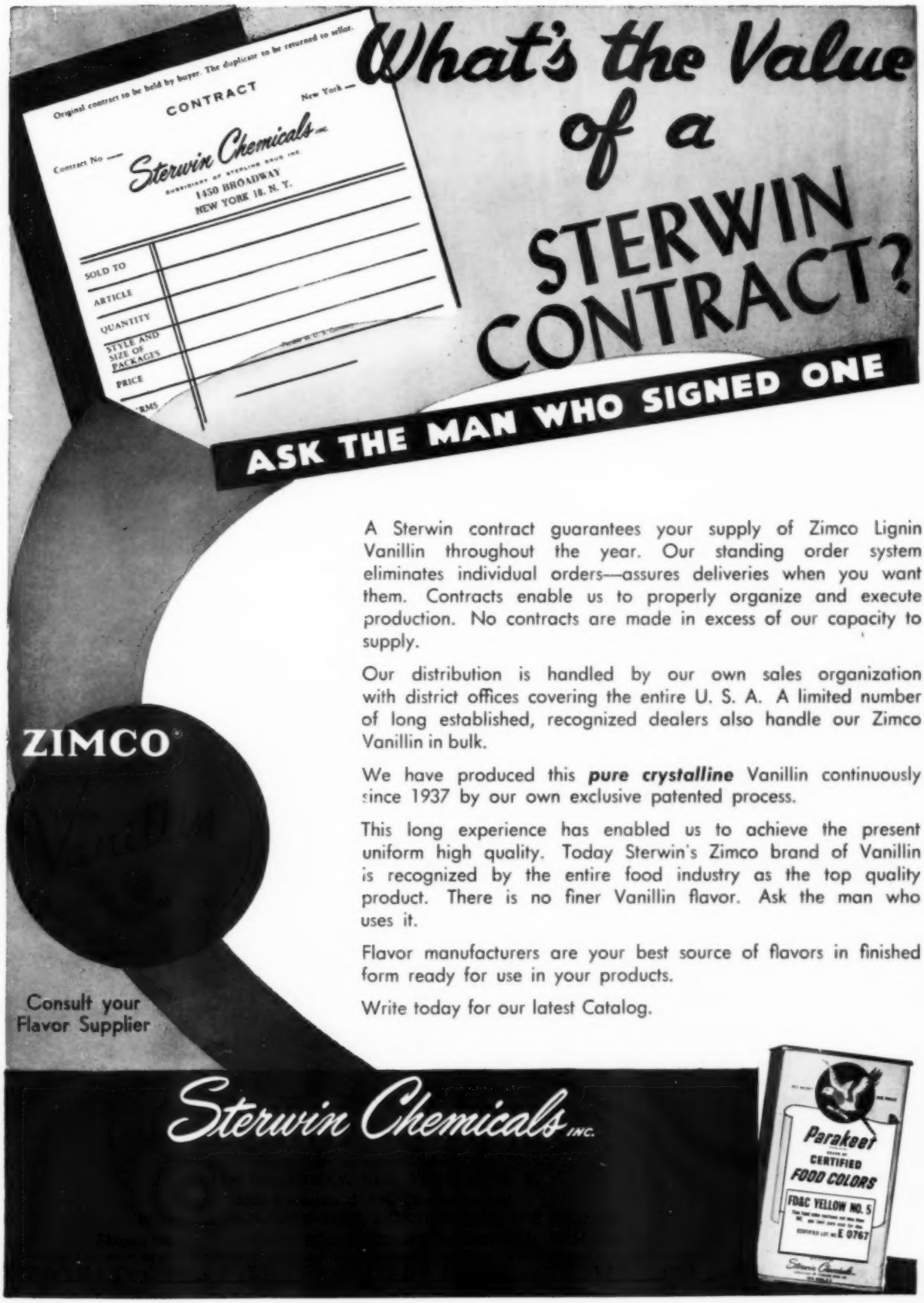
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Original contract to be held by buyer. The duplicate to be returned to seller.
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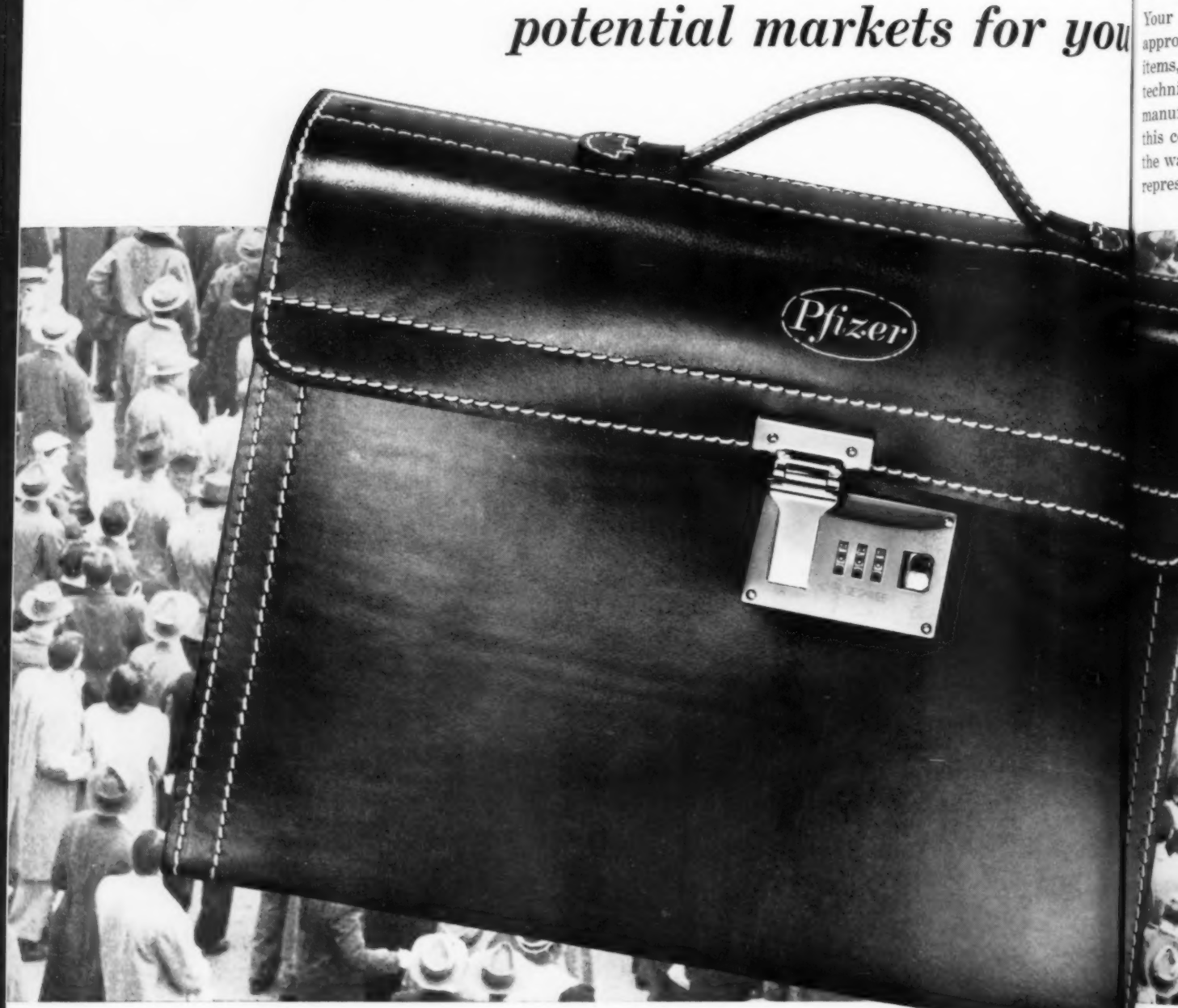
this briefcase can open potential markets for you



Here are just a few of the many Pfizer products that are expanding and developing

News-making reserpine, already famed as an outstanding hypotensive, promises drug manufacturers even broader product and profit possibilities. Because it provides sedation without hypnotic effect, it is valuable in preparations for organic disorders accompanied by emotional upset. Pfizer Reserpine is offered as pure Crystalline Bulk and as a Crystalline 1% Trituration for uniform distribution. **Write for Technical Bulletin 81.**

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markets for the pharmaceutical industry

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It must be designed to diffuse properly, to last effectively and remain unchanged . . .

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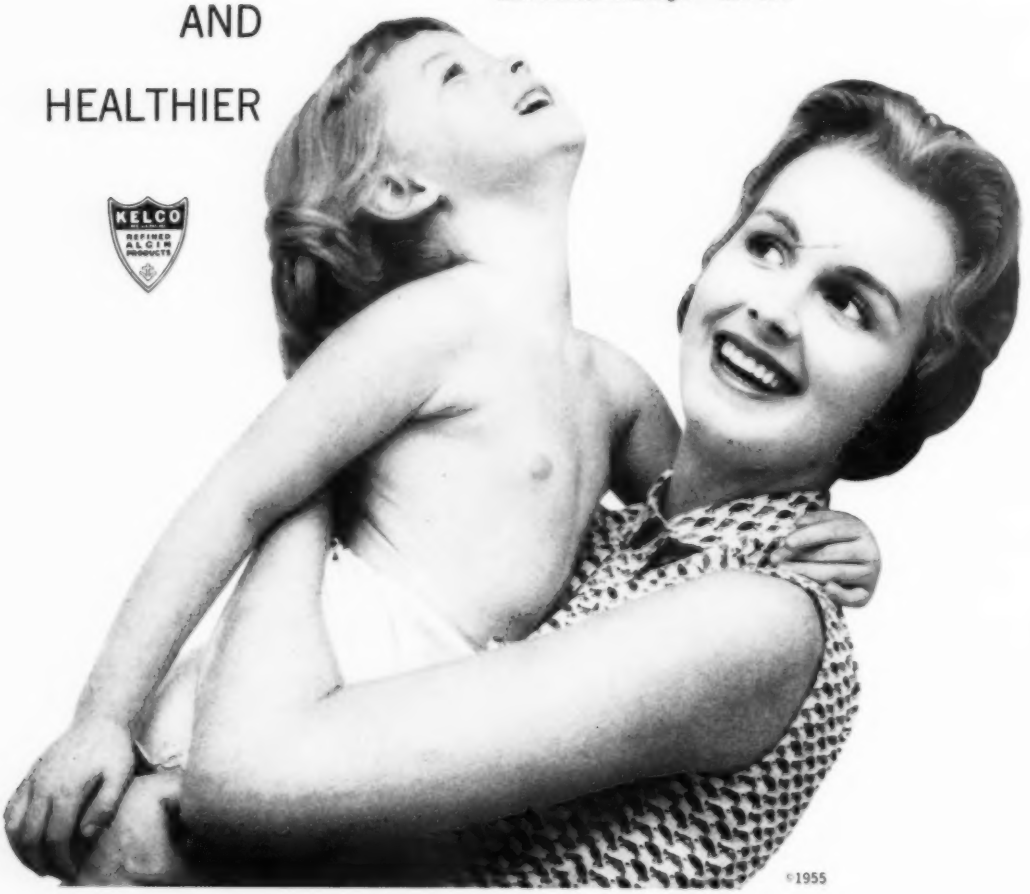

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RESEDALIA

AN ACETAL

PHYSICAL APPEARANCE:	Colorless liquid; APHA 10 Max.
ODOR TYPE:	Floral; resembles Reseda Mignonette.
SOLUBILITY:	10 parts soluble in 100 parts 70% Ethyl Alcohol.
STABILITY:	Very stable in neutral and alkaline media.
REFRACTIVE INDEX:	1.4972 (R.I. n $\frac{20}{D}$)
SPECIFIC GRAVITY:	$\frac{20}{20}$: 1.0020
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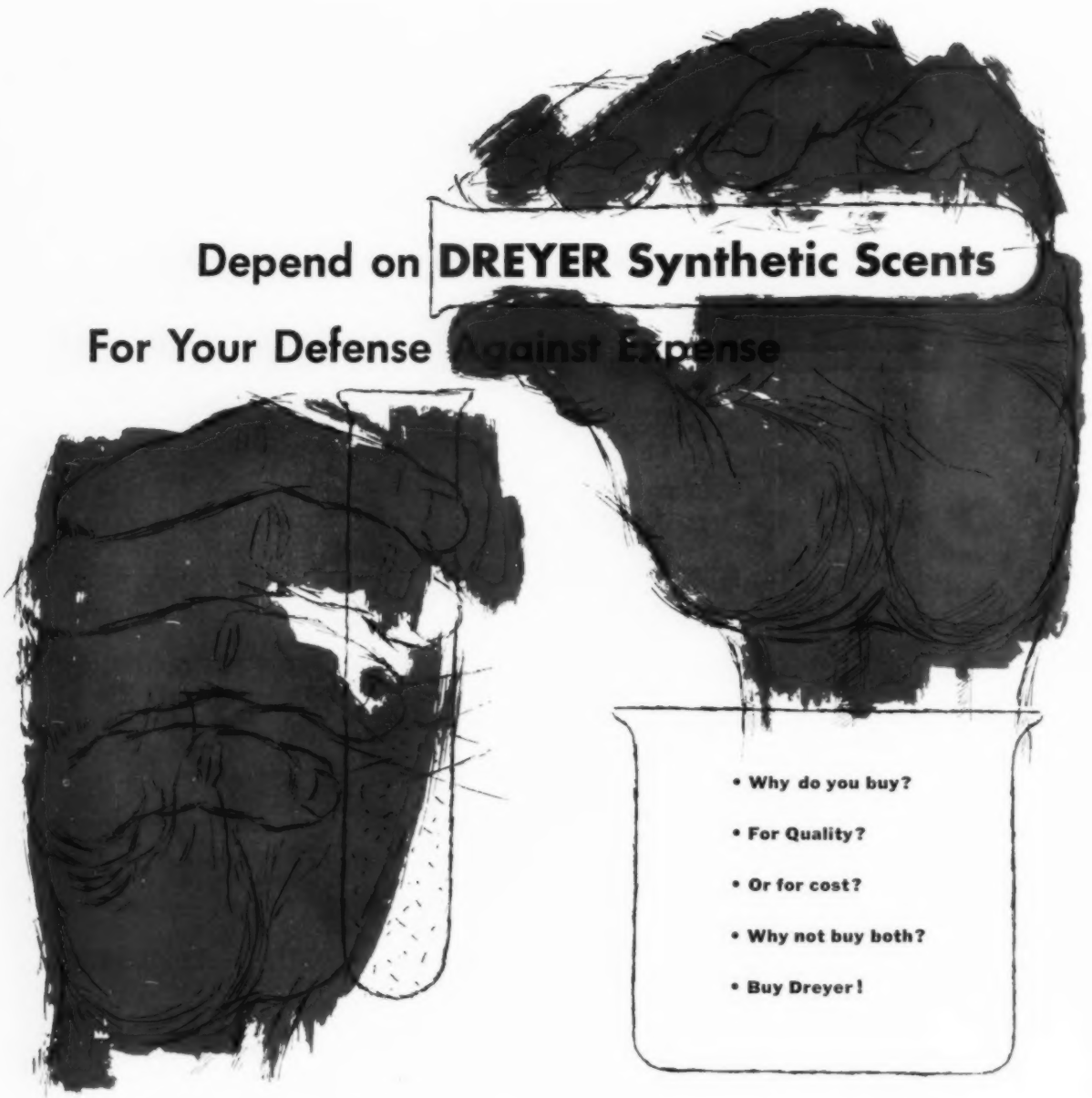

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You get distinguished *re-creations* of natural flower odors and bouquets in all Dreyer Synthetic Floral Creations and Perfume Concentrates.

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- Lignyl Acetate is another successful product resulting from our extensive chemical research program.

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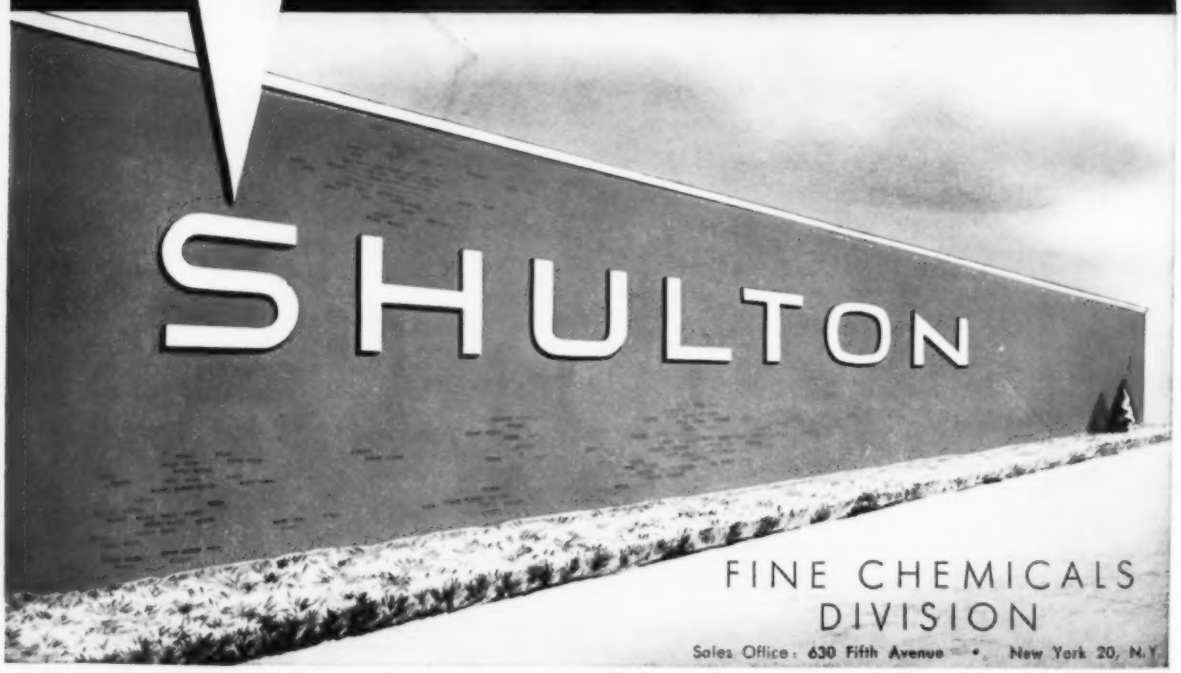

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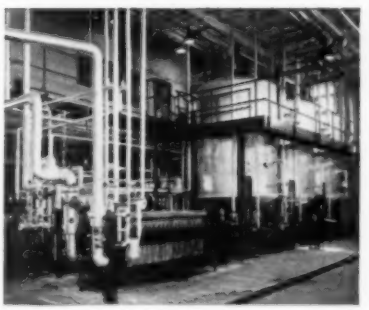

Above is a filtering and finishing area in the new Atlas emulsifier plant at Memphis.

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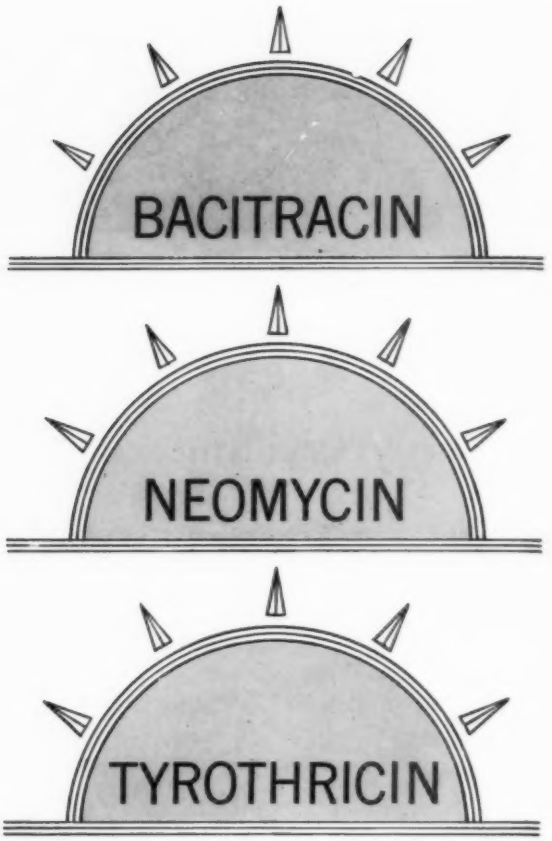

New Uses Every New Day

The *specialty antibiotics*, bacitracin, neomycin, tyrothricin, are gaining further well deserved acceptability in external preparations for skin conditions.

In a recent report on pyogenic skin infections, Pillsbury and Kligman mention the avoidance of topical application of compounds which might be required later for the treatment of certain systemic infections, and state they find bacitracin and neomycin reasonably safe, with a wide spectrum of antibacterial effect.[1] Since bacitracin and neomycin singly and in combination are effective against gram-negative and gram-positive organisms, the results compare favorably with other antibiotics used locally. No sensitization or primary irritation has occurred from their usage.[2]

1. Pillsbury and Kligman, Correspondence, British Medical Journal, March 20, 1954. Page 706.
2. J. M. Greenhouse and W. C. Ryle, A.M.A. Archives of Dermatology and Syphilology. 69:366-67, March, 1954.

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in stearic acid

Emersol® 132 Lily withstood 2 years Storage with no ill-effects

Original Color Stability: 2.3 R (5¼" cell) After Two Years: 2.5 R (5¼" cell)

Here's further proof that storage even beyond normal expectancy either on the shelf or in plant inventory, has no measurable ill effects . . . *Case History No. 2-51: A medium sized manufacturer of high-quality esters uncovered a number of bags of Emersol 132 Lily that somehow had escaped inventory rotation. Although the appearance and odor of the material was normal, he sent samples to us for assurance that it still met our high quality standards since his records indicated receipt 2 years ago. Our test results indicated that the Emersol 132 Lily was practically as good as the day it was made.*

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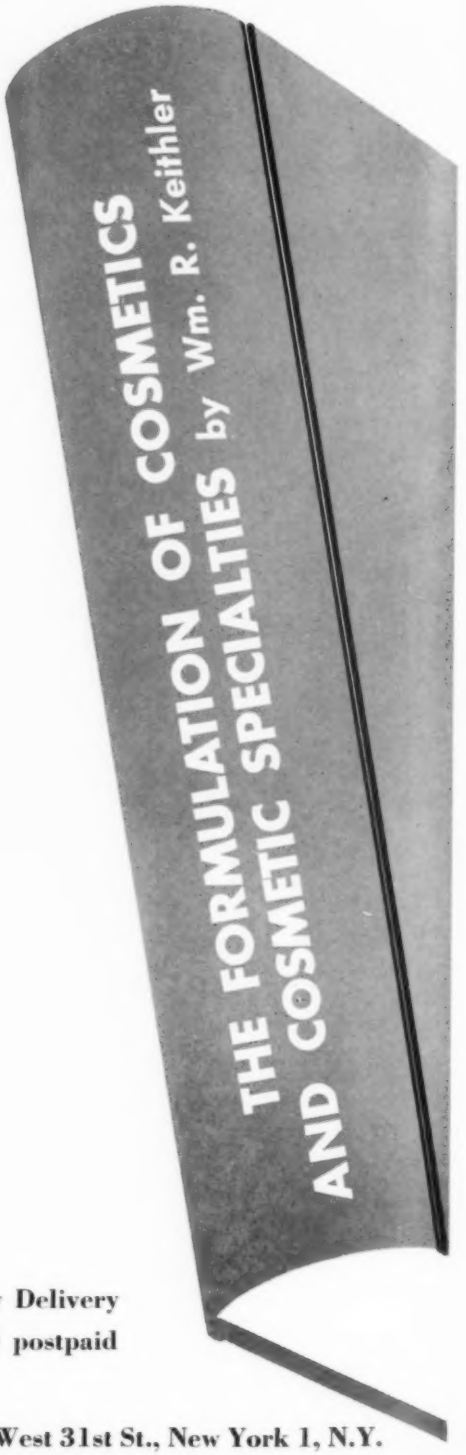

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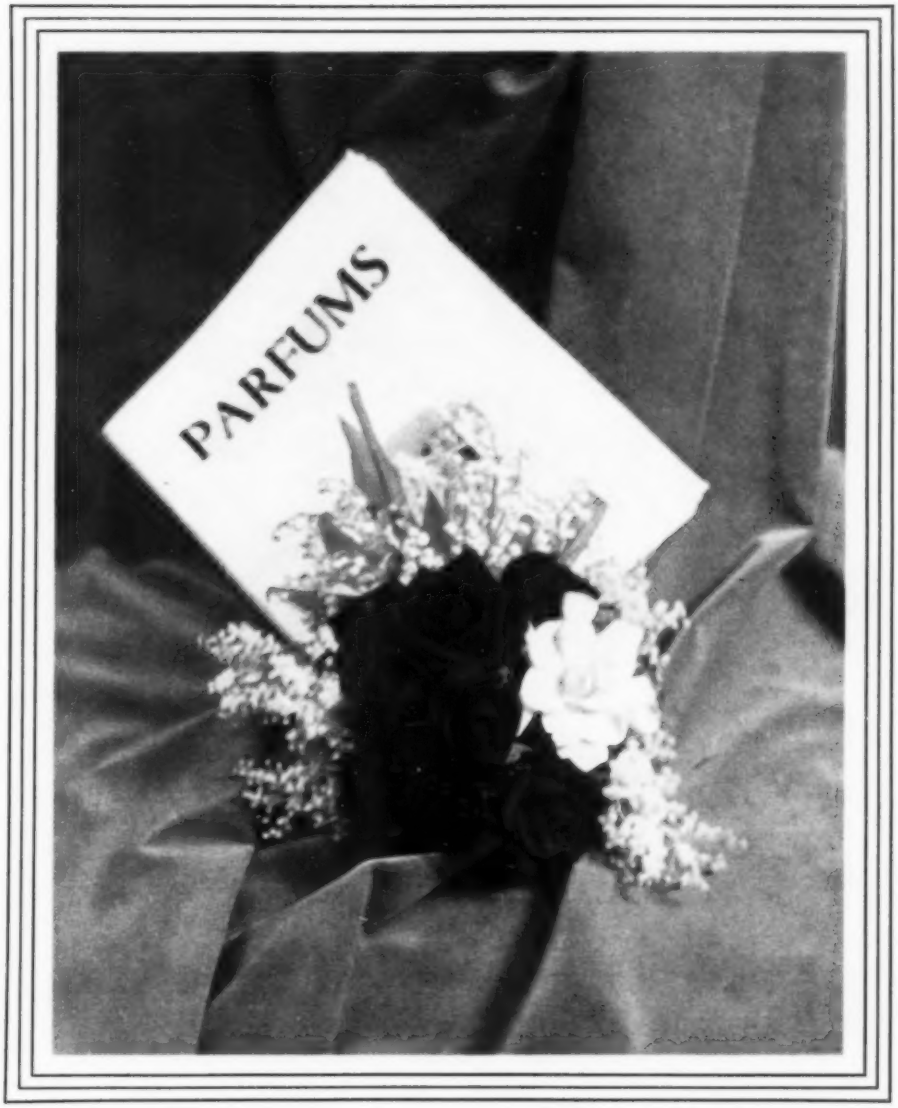

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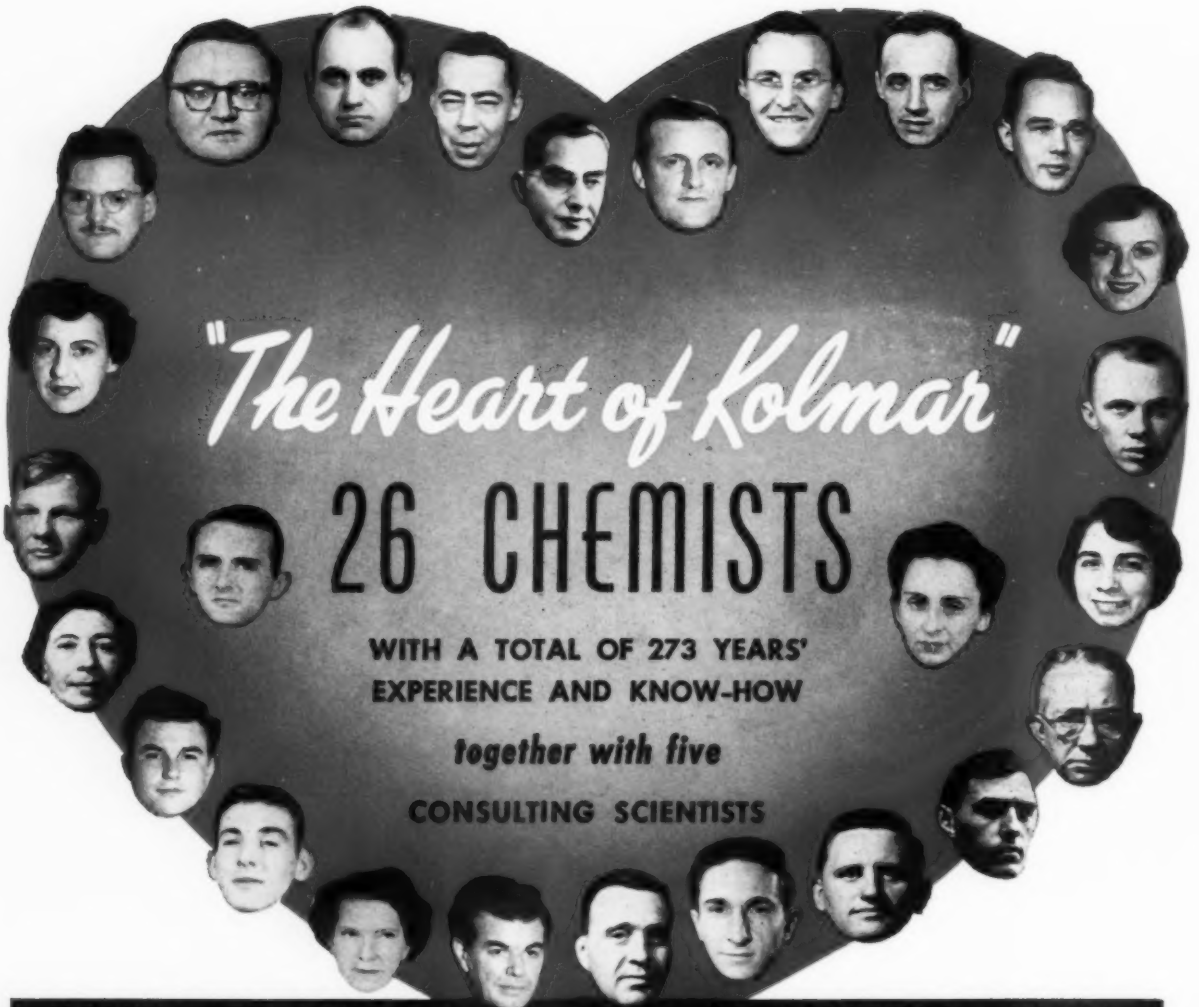
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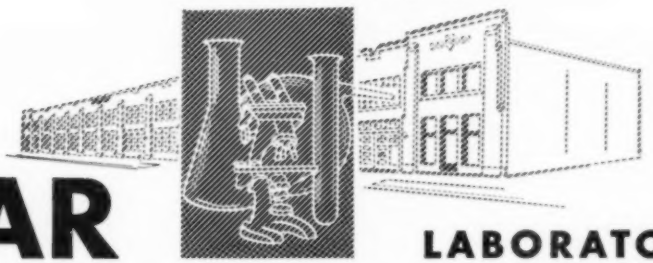

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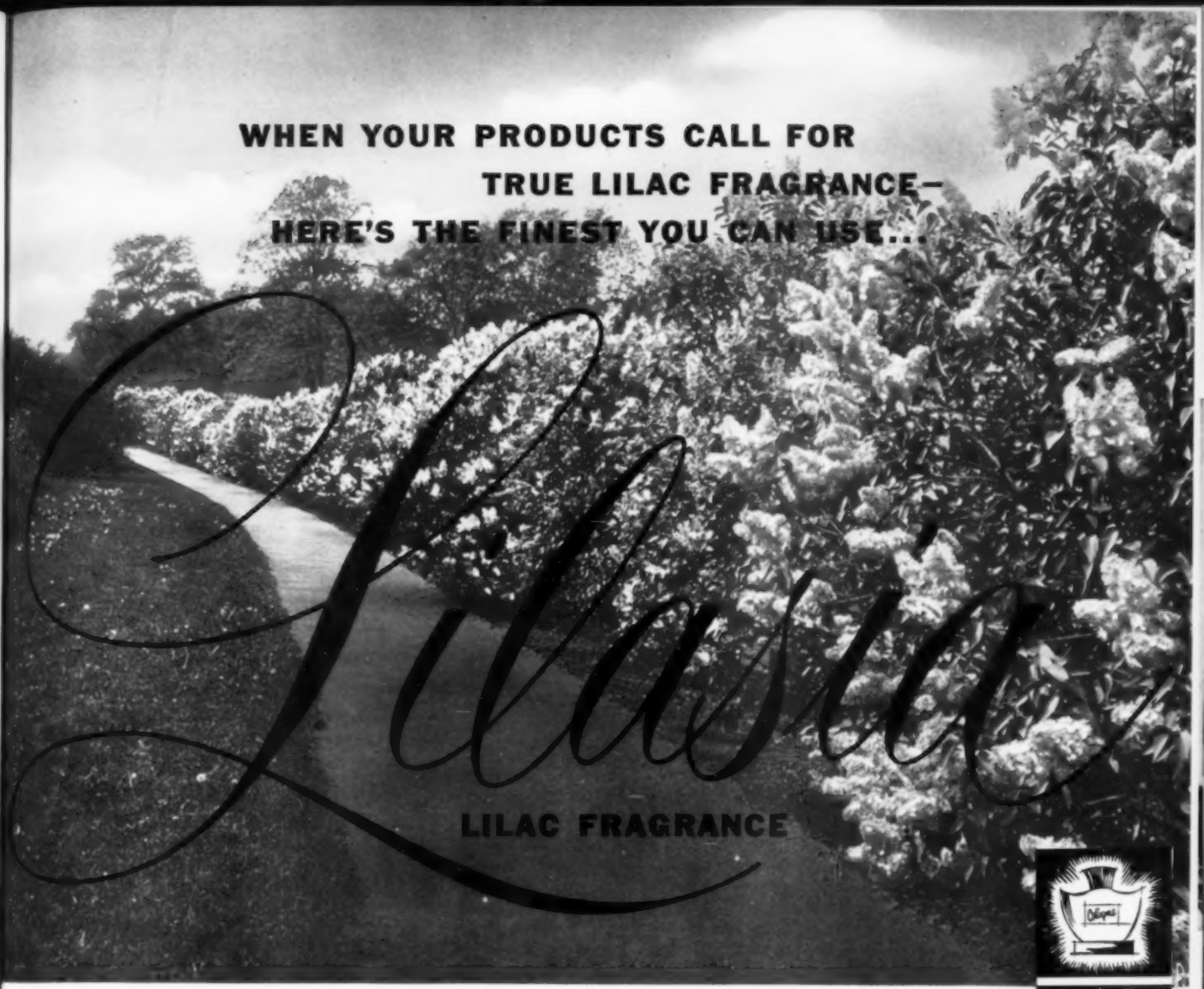

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Keeping Posted

Larrick Favors Barbiturate Amendment

Federal Food and Drugs Commissioner George P. Larrick favors legislation which would require retail druggists to maintain records of all barbiturates and amphetamines received and sold. Commissioner Larrick also told a Senate Narcotic Subcommittee investigating illicit drug traffic that he favored amendment of the Durham-Humphrey Act making possession of barbiturates or amphetamines without a prescription a violation of the law.

Medical Care and the Public

Forty per cent of the adult population believe food costs are much too high; 15 per cent believe repair charges (TV, auto repair, etc.) are excessive; 27 per cent are equally critical of clothing costs; only 26 per cent believe that the cost of medical care is much too high. These figures are from a preliminary report of a national survey of opinions and attitudes toward medical care released last month by the Health Information Foundation. The survey is being conducted under a grant from the Foundation by the National Opinion Research Center of the University of Chicago. While only partial and preliminary, not final, results of interviews of a scientifically selected sample of the population including a special sampling of physicians and pharmacists are given in this 32-page booklet, findings of special interest to this industry are:

While medical costs in general come in for less criticism than other elements of the cost of living, within the category of medical costs the percentage believing costs "much too high" are for doctors' fees, 16 per cent; hospital charges, 39 per cent; dentists fees, 21 per cent; prescriptions at drug stores, 38 per cent.

Among those saying drug costs are much too high, analysis by education shows little variation; 37 per cent of those attending college, 26 per cent of those attending high school, and 40 per cent of those with grammar school education are critical.

Income does not affect degree of criticism; 38 per cent of those with $3,000 income or less say drugs are too high; and 37 per cent of those with incomes of $5,000 or greater are critical.

Complaints of drug prices are greatest among those segments of the population which are also critical of food, repair, and clothing prices.

Eighty per cent of the public state that their impression of the companies which manufacture new and wonder drugs is very favorable or fairly favorable. Two per cent express an unfavorable opinion. The remainder have no opinion concerning drug manufacturers.

Fifty-six per cent of the population cannot give the name of one company who, they believe, manufactures a new or wonder drug.

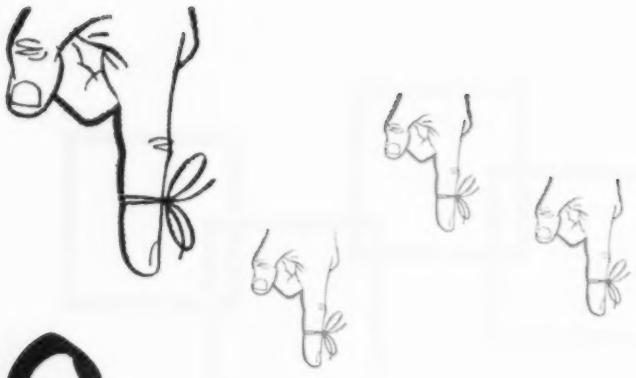
Fifty-three per cent of the population state that they have purchased one of these new drugs by prescription. Of these, 79 per cent say that they are entirely satisfied, and only 21 per cent have any reservations. Only three per cent of the public report the drugs as ineffective.

When asked, "What are some of the things that make it easier to have food health today that it was 30 years ago?", 71 per cent cited improvements in medical knowledge and facilities, and almost half the population—47 per cent—specifically referred to new drugs, medicines and vaccines now available.

When asked, "Who or what is mainly responsible for making it easier to have good health today?" only one per cent specifically mentioned the pharmaceutical industry.

When asked who or what has been responsible for the delay and difficulty in getting polio vaccine to the people, only one person in three gave any indication at all of blaming some group or individuals, though the interviewing was conducted at the height of publicity about this problem. Of those who did attach blame, complaints were almost equally divided between government, pharmaceutical manufacturers and others.

Thirty-eight per cent of the population believe the cost of prescriptions is much too high, and 28 per cent believe that costs are somewhat higher than they should be. Of the reasons given for high cost by this group, less than half attach blame to anyone. Twenty-six per cent of those who complain of prescription costs blame the druggists, 10 per cent mention physicians,



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and seven per cent pharmaceutical manufacturers. An additional 16 per cent blame some unspecified "they." Some individuals mention more than one person or group.

To the question, "What people or groups do you think have been mainly responsible for these new wonder drugs?", only 11 per cent gave specific credit to the drug companies, pharmaceutical houses, the chemical industry, or drug manufacturers; additional nine per cent mention "laboratories;" 23 per cent credit doctors, the American Medical Association or groups of doctors; 40 per cent credit scientists, science, research, or such persons as medical researchers and chemists.

Sterling Drug Sued by Bayer

Farbenfabriken Bayer, A.G., one or the German firms that took up where the German I. G. Farben left off after the World War II, has brought two suits against Sterling Drug in the U. S. District Court, Newark, N. J.

The first suit against Sterling charges "restraint of trade" and asks the court to enjoin Sterling from interfering with Bayer's efforts to re-enter the pharmaceutical market in this country, and is seeking treble damages for losses suffered. Bayer says that it tried to put its products back on the U. S. market in 1949 through an agreement with Schenley Laboratories, but that Sterling has conspired to prevent this. The second suit charges that Sterling has broken several agreements made between the two companies back in 1920 and 1923. The 1920 pact is said to comprise a joint enterprise between Bayer and Sterling covering sale of aspirin products in Latin-America. Bayer claims that for release of its trademarks to Sterling, it was to receive 25 per cent of the profits on Latin-American sales for fifty years. The 1923 contract, according to Bayer, provided for Sterling's use of Bayer's research data and the Bayer Cross trademark; called for Bayer to stay out of the U. S. market; and gave Sterling exclusive rights to sell Bayer products in Britain, Australia, and South Africa. Profits were to be split fifty-fifty between Bayer and Sterling.

Tuberculosis Prophylaxis

The National Tuberculosis Association and the U. S. Public Health Service announced last month that INH (isonicotinic acid hydrazide) is under study as a prophylactic agent in the hope of preventing tuberculosis in persons who are "tuberculin positive." These persons are said to comprise 75 per cent of tuberculosis cases. Tests on a program of prophylactic doses of INH has been under way since February, but the results will not be available for some time. However, Public Health officials are said to be so pleased with the indications that they are using the technique on their own laboratory technicians and others exposed to tuberculosis infection.

The INH program was started among 900 children who had shown a positive reaction to the tuberculin test. Half receive small doses of INH, while the other half receive a placebo. It is estimated that there are 50,000,000 tuberculin positive persons in the United States, and statistics indicate that three-quarters of the 100,000 new cases of tuberculosis each year come from the positive group. In New York City nearly half of the population is believed to be positive.

In addition to the probable use of INH as a prophylactic in tuberculosis, the possible use of a hormone for the same purpose has been proposed by Dr. Max Lurie of the Henry Phipps Institute of the University of Pennsylvania. Dr. Lurie told a meeting of the Committee on Medical Research of the American Trudeau Society, the medical section of the American Tuberculosis Association, that tiny injections of triiodethyronine, a synthetic hormone, "almost completely inhibited" the growth of tubercle bacilli in naturally susceptible test rabbits. For twenty years Dr. Lurie has been studying the difference between two strains of rabbits, one of which is naturally resistant to tuberculosis, and the other of which is naturally susceptible. Some time ago, Dr. Lurie has narrowed this difference down to hormone differences, but this is the first time that resistance was demonstrably connected to thyroid activity. Susceptible rabbits produce an excess of cortisone, according to Dr. Lurie, and cortisone stimulates the spread of tuberculosis in human patients. However, when susceptible rabbits are injected with triiodothyronine, they developed hyperthyroidism and overcame their excess of cortisone.

Pepsodent Scholarship Program

Pepsodent Division, Lever Brothers Company, has created the Pepsodent Presidential Scholarship Program to provide scholarships in schools of pharmacy for high school graduates selected by presidents of state pharmaceutical associations. The amount of the scholarship will be $500 for a five year course of study in a school of pharmacy, or $400 if the course of study is only four years. Each president of a state pharmaceutical association elected to office during 1955 will be eligible to select a student who will enter a school of pharmacy in the Fall of 1956. Each succeeding year the current president will enjoy the same privilege, the scholarship becoming effective at the beginning of the regular college year.

Aspirin Labeling Ruling

The Food and Drug Administration has finally acted in the matter of labeling aspirin preparation in an attempt to minimize the danger of these preparations to children. This action has taken the form of the issuance of an advisory ruling which is in the nature of polite warning, since the industry has previously indicated its willingness to cooperate in the safety campaign.

Under the ruling manufacturers are given six months to label aspirin and other salicylates with conspicuous warnings to adults to store the drugs out of reach of children. Recommended label language in the ruling reads: "Warning—keep out of the reach of children." Manufacturers have the privilege of using alternative similar language of their own choosing. FDA also recommended the following language in view of spe-

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cific dose recommendations for children under three: "For children under three years of age, consult your physician."

The ruling applies to preparations containing aspirin, salicyamide, salicylic acid and its salts, and other salicylic acid derivatives used as analgesics. However, it does not cover all of wintergreen (methyl salicylate) which already bears a warning statement, effervescent salicylate preparations, nor preparations of para-animosalicylic acid and its salts.

Cosmetic Chemists' Meeting

The scientific program for the annual meeting of the Society of Cosmetic Chemists, December 15, Hotel Commodore, New York, has been announced. It has also been announced that the Medal Award Dinner to be held in the evening to bestow the Society's Medal Award upon Dr. Ernest Guenther, vice-president of Fritzsche Brothers, will be followed by the Tenth Anniversary Dance in celebration of the tenth anniversary of the Society.

Papers to be presented before the morning scientific session are: The Emerging Cosmetic Chemistry, Dr. Paul G. Lauffer, G. W. Luft Company; New Silicones for the Cosmetic Industry, C. C. Currie, Dow Corning Corporation; Potential Utility of Ion-Exchange Resins in Antiperspirant-Deodorant Formulations, J. C. Winters, Rohm & Haas Company; Fatty Acids and Derivatives in Cosmetics, V. Babayan, E. F. Drew & Co.

The afternoon session will consist of a symposium on dandruff with the following papers: Review of Dandruff Research to Date, J. V. Klauder, Industrial Toxicology Laboratories; Sodium Sulfacetamide in the Treatment of Seborrhea Capitis and Seborrheac Dermatitis, Arnold H Gould, Assistant Chemical Professor of Dermatology, Georgetown University School of Medicine, and Schering Corporation; Selenium Sulfide as an Anti-Dandruff Agent, E. J. Matson, Abbott Laboratories.

What Is Your Product?

No one can tell how his product will be classified by any Government department as the result of knowing how it is classified by another Government department. As an example, a bubble bath preparation with a detergent base would ordinarily be expected to be classified as a soap. But since soap is not subject to the provisions of the Food, Drug, and Cosmetic Act, the Food and Drug Administration classifies this preparation as a cosmetic. Likewise, the Food and Drug Administration holds that shampoos are not soap, and are, therefore, subject to the provisions of the Food, Drug, and Cosmetic Act as cosmetics. However, the Internal Revenue Service declares that shampoos are soap and are therefore exempt from the cosmetic excise tax. The Interstate Commerce Commission, some years back, held that shampoos are not soap and, therefore, are not entitled to the soap freight rate classification. So until a manufacturer asks a particular Government department how it classifies a particular product, he cannot be sure he is right. Wouldn't it be wonderful if there was some body or group in the Government that would be charged with determining the classification of all products, which classification would have to be accepted by all other Government departments?

Restricted Sales in New Jersey

The case of the New Jersey Board of Pharmacy vs. the American Stores, involving the matter of restrictive sales of drug products, was recently tried. The Board of Pharmacy claimed that American Stores had violated the New Jersey Pharmacy Act by selling Bayer's Aspirin and Phillips Milk of Magnesia. Judge Edward Martino was the judge, Andrew Salvest was the State's attorney. The case for the American Stores was handled by Judge Brogan, assisted by James F. Hoge, George Chapman, and William Weigel.

The Board of Pharmacy contended that since Milk of Magnesia and Aspirin are included in the U. S. Pharmacopoeia, the Bayer and Phillips products are not patent or proprietary medicines, and hence would not come under the exemption provided in the State Act. They contended that all brands of Aspirin and Milk of Magnesia are the same.

In answer to this contention, the defendants contended that their products were the originally patented products, and the mere fact that the patent had expired and the U. S. Pharmacopoeia had picked up these two preparations and included them in that text did not detract from the proprietary interest and rights of the manufacturers; that their methods of manufacture differ from the methods used by all other manufacturers; and they further contended that a property right was supported by the fact that these products are trade-marked items. Fifteen professional witnesses—eight for the plaintiff and seven for the defense—gave testimony.

Judge Martino ruled in favor of the defendant holding that:

"Analysis of the testimony presented indicates that 'Bayer' Aspirin and 'Philips' Milk of Magnesia were the types of medicine which the legislature intended to fit the category of non-poisonous patent or proprietary medicines. . . ."

Welch Award Change

The Toilet Goods Association has changed the nature of the Charles S. Memorial Award which for the past ten years constituted a contest to determine the most outstanding packages launched in each calendar year, with the presentation of suitable plaques to the winners. Due to the increasing difficulties surrounding continuation of this program it was discontinued by unanimous agreement of the Board of Directors which appointed a committee to determine another type of memorial.

The committee decided that an essay contest for graduate students in business administration, on a topic selected by the Association, would be the most desirable type of memorial. After careful consideration of the entire field of business schools and types of essays which could be expected to be submitted, the Association has decided to give a suitable grant to the

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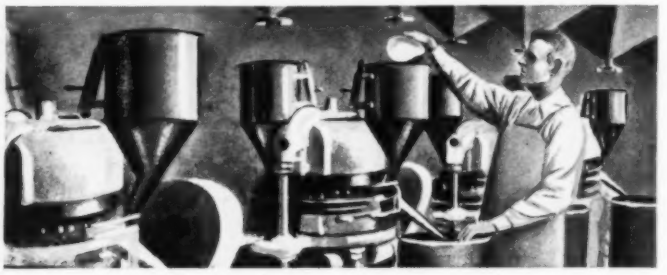

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Heyden Guaiacols

Guaiacol N.F. Solid or Liquid
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Other Heyden Chemicals

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Benzyl Chloride
Benzoates
Bromides
Formaldehyde
Glycerophosphates
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Salicylates
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* * *

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Ames Tuck School of Business Administration at Dartmouth College, Hanover, N. H., part of which will be used to assist the students in research on the selected topic, and the remainder as first and second prizes in the essay contest.

The topic selected for the first year is: A Study of the Attitude of College Girls to Make-Up Problems.

This award contest has been made an actual part of the curriculum of the School and complete faculty support for the project has been offered. The essays will be screened by a suitable faculty committee and the best four or five will then be submitted to a final judging by a committee from the school and trade press as follows:

Dean Arthur Upgren, Amos Tuck School of Business Administration.

Thomas R. Farrell, Editor, Drug and Cosmetic Industry.

Dan Rennick, Editor, American Druggist.

The awards will be presented at the time of the TGA annual convention.

A. P. M. A. Mid-Year Meeting

Some twenty speakers, representing the government, medical profession, pharmaceutical industry and other branches of business will address the five sessions, the award dinner, and the closing luncheon of the American Pharmaceutical Manufacturers Association's combined mid-year and eastern section meeting December 12, 13, 14, at the Waldorf-Astoria Hotel, New York.

The five sessions include the Export Session on the morning of Monday, December 12. Lester W. Manning, Squibb International, will preside and Dr. Morris Fishbein will be the opening speakers. The Marketing Session with Dr. W. H. McLean, Merck & Co., presiding will be held Monday afternoon. The Production Session, with Hubert E. Boyden, Wm. H. Rorer, presiding, will be held on the morning of Tuesday, December 13, and the Medical and Scientific Session, with Dr. George H. Schneller, of Wyeth Laboratories, presiding will be held Tuesday afternoon. The Industry and Economic Session, with John J. Powers Jr., Chas. Pfizer & Co., presiding will be held on the morning of Wednesday, December 14.

On Tuesday evening, December 13, the formal dinner for the presentation of the Association's annual award to Dr. Charles W. Mayo will be held in the Starlight Roof of the Waldorf-Astoria.

Abbott Foundation

Twenty-three sons and daughters of employees of Abbott Laboratories are in college today participating in scholarships awarded by the Abbott Foundation. This foundation is an educational and philanthropic trust set up under the will of the late Clara Abbott, widow of Dr. Wallace C. Abbott, founder of Abbott Laboratories. The foundation's primary purpose is to be of help, in various ways, to Abbott employees and their families. Scholarship awards are made each year by a committee consisting of the President of the Foundation, an employee of Abbott Laboratories, and four prominent educators in the community. In making its selections, the committee weighs each applicant's scholastic achievement, financial circumstances and his participation in worthwhile extracurricular activities. Four of the twelve winners for 1955-1956 are sons or daughters of Abbott representatives in various parts of the country. The remaining eight are from the area surrounding Abbott's main plant in North Chicago.

Lilly Three-For-One Stock Split

Eli Lilly and Company has called a stockholders' meeting for December 15 for the purpose of voting on a three-for-one stock split. Under the plan each of the present shares of voting common stock without par value would be exchanged for three shares of Class A voting common stock having a par value of $5 each, and each share of the present shares of Class B non-voting common stock without par value would be exchanged for three shares of Class B non-voting common stock having a par value of $5 each. This change would increase the number of shares of Lilly voting common stock from 1,000,000 to 3,000,000 and Lilly non-voting common stock from 2,000,000 to 6,000,000.

Organic Chemical Production

The U. S. Tariff Commission has published production figures for synthetic organic chemicals for 1954. Some interesting figures are:

Aspirin, 13,913,000 pounds; Sulfa drugs, 4,157,000; total antibiotics, 1,837,000 pounds, which is composed of Bacitracin 7,000 pounds, Streptomycin 597,000 pounds, Dihydrostreptomycin 446,000 pounds, Neomycin and salts 15,000 pounds, Penicillin salts 631,000 pounds (Penicillin potassium 186,000 pounds, Penicillin procaine 378,000 pounds, other penicillin salts 67,000 pounds), all other antibiotics 597,000 pounds.

Antihistamines 163,000 pounds; Barbituric acid derivitives 798,000 pounds, (Phenobarbital 316,000 pounds, Pentobarbital 62,000 pounds, Secobarbital 78,000 pounds, Barbital 24,000 pounds), Steroid hormones 28,000 pounds (Hydrocortisone acetate and alcohol 10,000 pounds, all other 18,000 pounds); Isoniazide 55,000 pounds.

Vitamin A (alcohol and esters) 116,000 pounds; Thiamine derivatives 259,000 pounds; Riboflavin for human consumption 100 per cent 97,000 pounds; Riboflavin for animal and poultry consumption 100 per cent 181,000 pounds; Pyridoxine 24,000 pounds; B_{12} all grades 422 pounds; D_2 (irradiated ergosterol) 1,000 pounds; D_3 (irradiated animal sterol) 1,000 pounds; Niacin, Niacinamide, niacinamide hydrochloride 2,206; Ascorbic Acid and derivatives 1,834,000 pounds; Pantothenic Acid and derivatives 458,000 pounds; all other vitamins 435,000 pounds.

Anethole 934,000 pounds; Anisaldehyde 189,000 pounds; Benzyl Acetate 624,000 pounds; Benzyl Salicylate 40,000 pounds; Eugenol 140,000 pounds; Isoeugenol 88,000 pounds; Methyl Salicylate 2,898,000 pounds; Phenylethyl alcohol 886,000 pounds; Phenyl-

ethyl acetate 54,000 pounds; Citral 51,000 pounds; Citronellol 223,000 pounds; Coumarin 418,000 pounds; Geraniel 417,000 pounds; Hydroxycitronellal 169,000 pounds; Alpha Ionone 16,000 pounds; Beta Ionone and Alpha and Beta Ionone mixture 151,000 pounds; Isobornyl Acetate 219,000 pounds; Linalool 142,000 pounds; Linalyl Acetate 127,000 pounds; Synthetic Menthol (Tech. and USP) 364,000 pounds; Methylionones 134,000 pounds; Heliotropin 261,000 pounds; Terpineols 2,481,000 pounds.

Successor to Dr. Cullen Sought

A successor to Dr. Frederick J. Cullen as executive vice-president of the Proprietary Association is being sought by a management consultant firm for the reason that the effective date of Dr. Cullen's pension is approaching. Dr. Cullen's retirement has been set for no specific date, as much depends on the length of time required to break in his successor.

Dr. Cullen came to the Proprietary Association in 1934 in the midst of the legislative fight over a law to replace the Food and Drugs Act of 1906. He had previously been chief of drug control of the Food and Drug Administration. Upon his retirement from the Proprietary Association, Dr. Cullen plans to continue in the drug field as a private consultant.

Zonite Forms Four Divisions

Zonite Products Corporation has reorganized into four separately functioning divisions representing widely diversified fields within the drug industry. The new entities are Zonite Division, for proprietary drugs; Crookes Laboratories (including A. C. Barnes products), for ethical pharmaceuticals; Lady Esther Division, for cosmetics and toiletries; and Larvex Division, for household products. Zonite President Charles T. Silloway explains that "The purpose of establishing these separate entities within Zonite Products is to permit each division to adopt the plans and policies most conducive to its own growth, and to lay the foundation for the continued expansion of the Corporation in each of these fields."

Each division will maintain a separate sales force, with emphasis upon selling the retailer through the wholesaler. Wholesale distribution is on a selected basis.

T. G. A. Scientific Meeting

The program for the mid-winter meeting of the Scientific Section of the Toilet Goods Association to be held December 14 in the Sert Room of the Waldorf-Astoria Hotel, New York, has been formulated. This meeting is closed to non-members of the Association.

At the morning session, which opens at 9:30, the papers will be: Aerosol Spray Patterns, Morris J. Root, Technical Director, G. Barr & Co.; Creme Shampoo Formulations, R. L. Patterson, Industrial Research Department, Procter & Gamble Co.; Factors Contributing to the Performance of Shampoos and to Consumer Acceptance, Gabriel Barnett and Donald H. Powers, Warner-Lambert Pharmaceutical Co.; and Tissue Culture Applications in Pharmacological Evaluations, Ivaor Cornman, Hazleton Laboratories.

At the afternoon session, which convenes at 2:00, the papers will be: The Determination of Antiperspirant Activities, Otto Jacobi and Herbert Heinrich, Kolmar Research Center; In Vitro Test for Predicting the Effectiveness of Antibacterial agents in Soap, C. L. Bechtold, E. A. Lawrence and E. M. Owen, Research and Development Department, Colgate-Palmolive Co.; and A Practical Approach to Container Development for Toiletries, A. R. Jasuta, Chief Packaging Unit, Bristol-Myers Research and Development Laboratories.

Fair Trade on Prescriptions Upheld

The U. S. Supreme Court has refused to review the Circuit Court decision which held that fair trade pricing of drug products sold on prescriptions was valid. This means that the case brought by Hoffmann-La Roche against Schwegmann Brothers Giant Super Market has been decided in favor of Hoffmann-La Roche by the highest court. Therefore, in all States in which fair trade laws are effective, the fair trade minimum prices on prescription and other drugs must be observed by the retail pharmacist even though in filling a prescription the manufacturer's labels are removed, and the retail pharmacist's prescription label is substituted.

Plant Inspection by Illinois

In the purchase of drugs, the State of Illinois is requiring that out-of-state manufacturers and suppliers submit to plant inspection by the agents of that State. A number of drug manufacturers have recently been advised of the requirement by the Illinois State Purchasing Agent and fear that this might be a forerunner to similar action by other States which might prove to be quite an unwarranted burden. Manufacturers are concerned about what protection they could anticipate in the safeguarding of their valuable trade secrets which might be uncovered by the state inspectors.

In a letter to the manufacturers and suppliers, the State Purchasing Agent said that the policies of the State with respect to purchases of drugs have lacked adequate controls to insure a satisfactory level of quality, and that a new policy had been evolved to increase the standard of quality that is "reasonably simple, is fair to all legitimate drug manufacturers and suppliers, and that is capable of enforcement." The policy is based on the maintenance of a certain level of quality control and maintenance of sanitary conditions by the manufacturers. A long questionnaire and a form must be filled out by drug manufacturers and suppliers to serve as an application of approval of the company to serve as an authorized supplier of drugs to the State.

It is required that the manufacturer or supplier certify that he maintains a program of quality control equal to or exceeding the standard set up by the State, and that permission will be granted to a representative of the purchasing agent to visit the premises for the purpose of determining compliance.

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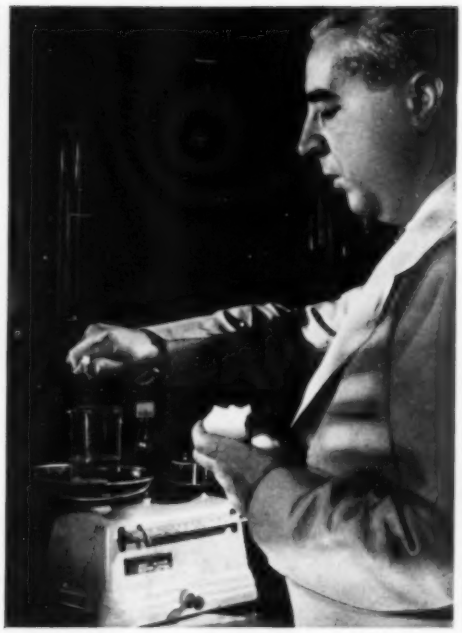

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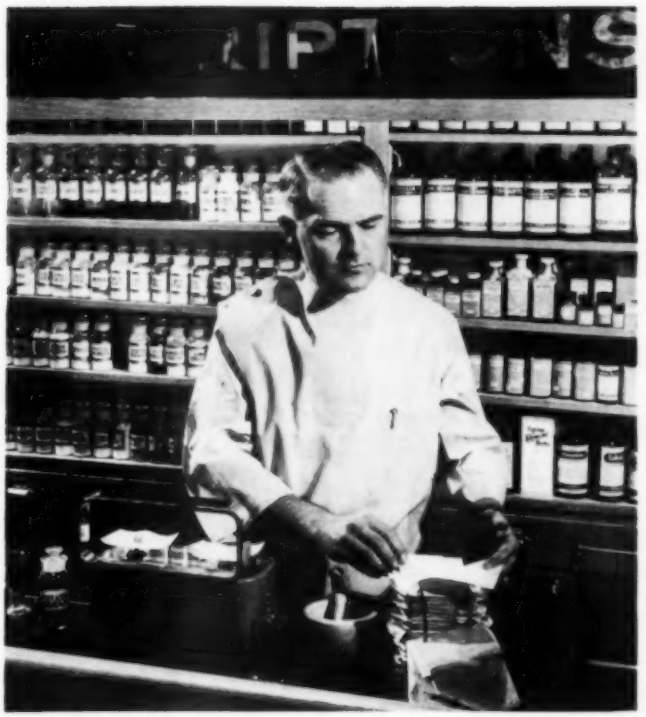


EWING GALLOWAY PHOTO

In the medical care group in this country there are several important segments. Perhaps the ones that come most quickly to mind are the medical profession, the pharmacists or druggists, the pharmaceutical or drug manufacturers, and the hospitals. These are certainly the major elements in medical care which collect from the sick the large bulk of the money which they spend for medical care. Criticism is directed against all of them today for the high prices which they charge.

However, the one aspect of the complaints concerning the high cost of medical care in which we are interested is that concerning the prices charged for the new and relatively new drugs. Criticism is directed against doctors in some instances for prescribing drugs which cost so much on prescription. Criticism is directed against druggists for the high prices which they charge for these drugs on prescription. And criticism is also leveled against the manufacturers of these drugs for the high prices at which they sell them, although in this case very few people know the facts. One very bitter form of criticism is that leveled against hospitals for the high prices they charge their patients for drugs which are prescribed by the doctor. Very often these remain at high levels long after the prices of the manufacturers and retail druggists have been sharply reduced. This seems to be one of the methods by which numerous hospitals in this country seek to lessen or overcome the deficits which face them at the end of each year.

The doctor who prescribes relatively high priced drugs for the reason that he knows they will cure his patients, or at least improve the patient's condition materially, is apt to agree with his patient when the patient complains that the prices of the drugs prescribed are too high. He is quite apt to tell the patient that there is nothing that he can do about it and that either the druggist or the manufacturer or both are getting rich at the expense of the patient. Next in line is the retail druggist who must defend himself against the complaints of customers who are very shocked at the prices they must pay for prescriptions they have filled. In many instances the druggist will take time to explain to the buyer how lucky he is to be able to obtain the particular product at any price in view of what it will accomplish, but perhaps more often he will merely shrug his shoulders and assure the patient that he is only making a normal profit over the very high price he must pay the manufacturer for the drug.

Thus the real brunt of the criticism must be borne by the manufacturers. And since today practically all of the leading pharmaceutical manufacturers are publicly owned, their sales and their earnings are published in the daily press and everyone can see the extent to which they have improved their earnings. These figures cannot only be read by the public, but they can be referred to by the hospitals, the doctors, and the druggists in defense of charges of high prices leveled against any of these three groups.

This is the problem facing the drug and pharmaceutical manufacturers. Everyone in the industry knows very well that the prices charged for the products of this industry are well within the limits dictated by good accounting practices no matter what the value of these products might be to the people who use them and benefit from their use. Prices for new products might appear high when the products are first introduced, but after the use of these products spreads and after the initial money spent for research, clinical trials, and other high costs are amortized, the prices of these drugs are materially lowered so as to increase their use in order that more people may benefit and so the manufacturer will have a more stable business in these products. Certainly the research by manufacturers to produce these drugs must be paid for, and certainly all of this research is not successful and the total cost of all research must be

(Continued on page 705)

Physiological Deodorants

by Joseph Kalish, Ph D.

Reserving for another occasion a full discussion of the physiology and pharmacology of perspiration (it will be very difficult to make any statements on the subject as good as the discussion in Rothman's book), I still want to write about a research idea that has been pulling at me for several years. This idea concerns the possibility of stopping or greatly retarding the flow of perspiration by means of appropriate drug absorption into the intact skin. An adequate research program, which I believe has reasonably good chance of success, might well turn out to be extensive and expensive, but would be necessary to provide incontrovertible evidence as to efficacy and safety and prevent possible repercussions.

Perspiration arises from the small eccrine and the large, partially sexual apocrine glands, the latter tending to be localized in the underarm area, among others. The apocrine gland secretion differs substantially in character from that of the eccrine glands, and is very much scantier. Both types of sweat are reported to be odorless when first excreted, but quickly develop an odor, especially characteristic in the case of apocrine sweat, under the influence of bacterial attack.

As a general over-all impression I believe that the problem of deodorizing perspiration has been solved. The many possibilities include the use of bactericidal and bacteriostatic agents which prevent the growth of bacteria, keep the sweat practically sterile and thus eliminate the bacterial decomposition and development of odor components. Another approach lies in the use of precipitants, including aluminum and zirconium compounds and possibly cationic-active surfactants which inactivate odor producing constituents of sweat by precipitation of inactive complexes, and may well exhibit some degree of bacteriostasis. Ion exchange resins operate through a combination of mechanisms, probably converting acidic and basic odor-producing compounds into insoluble, nonvolatile salts and at the same time adsorbing them to the point of inactivation.

As regards antiperspirant action by astringent or protein-precipitating chemicals, one of the major investigators in the field has asserted that these compounds display no effect upon the flow of perspiration; another investigator, no less eminent than the first disputes this contention and maintains that the compounds do indeed reduce perspiration. Be that as it may, it seems evident that there is room for improvement in the effectiveness and duration of antiperspirant action with due regard for safe application to the skin and harmlessness to fabrics.

Concerning the functioning of the more numerous sweat glands, the eccrine glands, which are five to ten times more numerous than the apocrine glands in the axillae or armpits, ordinary sweating is almost exclusively the result of nerve impulses activating the glands. Heat alone is rarely the primary stimulant: it is a factor, however, in that the glands function more rapidly and actively in a warm than a cold environment.

Nerve impulses are transmitted by a so-called cholinergic compound, acetylcholine, which is liberated at nerve ends and affects the receptor organ, in this case the eccrine sweat gland. Experimentally, local injection of acetylcholine in a dilution of one part in 50,000,000 of water is sufficient to cause sweat secretion. Other pharmacologically related compounds such as mecholyl and pilocarpine have similar activity.

Cholinergic drugs when administered by mouth (when they are not destroyed by gastrointestinal secretions) as well as by injection are active in causing sweating. This is also true when the method of administration is iontophoresis, an electrical conduction method which introduces drugs into the tissues by transportation through the intact skin. When the drug is given by mouth it soon enters the blood stream and tends to produce a generalized effect; shallow injection (intradermally) results in only local action at

COURTESY GERMAINE MONTEIL

the site of injection and this is also true for iontophoresis.

Anticholinergic drugs, of which atropine is a basic example, counteract the effects of the cholinergic compounds, the activity of interest to us being the ability to reduce and in some instances abolish body secretions. Here again the activity is shown whether the drug is introduced by mouth, under the skin or through it, so that oral administration will result in general reduction of perspiration and local treatment will produce local effects. Thus, atropine and the atropine-like synthetic anticholinergics such as Prantal, Darstine, Pamine, Banthine and Pro-Banthine, etc. are used medicinally in gastric ulcer treatment to reduce stomach acid secretion and permit the ulcer to heal. A notable side reaction to this treatment is dry mouth as a result of reduced saliva secretion and these drugs have also been used for treating general excessive sweating. Atropine, itself, is a compound which is toxic in relatively small doses so that effective doses are often responsible for toxic reactions. Moreover, what we are after is local effect on underarm perspiration, not general reduction of perspiration all over the body, so that antiperspirant tablets to be taken by mouth are not properly cosmetic items.

When pilocarpine or a similar cholinergic drug is introduced beneath the skin by injection or iontophoresis, increased sweating occurs in a definitely circumscribed region centered around the point of introduction. If now an anticholinergic is introduced into this same area, sweating is abolished, again in a limited region. The same effect is obtained if the anticholinergic is administered first, followed by the cholinergic compound.

An important factor not to be overlooked in these experimental findings is that perspiration is stopped at its source rather than by closing the skin openings. In this latter instance, sweat pressure from still functioning sweat glands may build up and cause prickly heat and other skin eruptions. Another vital matter for consideration is the fact that local action, either in promoting or in retarding sweating, takes place with amazingly small amounts of the active drug.

Coming now to the gist and sum of the matter, we believe that a research program looking for a cosmetic preparation with specifications given below has a reasonable chance of being successful and a good chance of paying off most handsomely in terms of sales volume and profit.

(*Continued on page 712*)

Infectious MONONUCLEOSIS

Arthur H. Bryan

BALTIMORE CITY COLLEGE

In a previous article* the author sought to associate the mouth and lip Flora of bacteria and viruses with possible disease transmission through kissing. Magazines described the dangers from mouth and lip osculation amongst susceptible couples as a *calculated risk*.

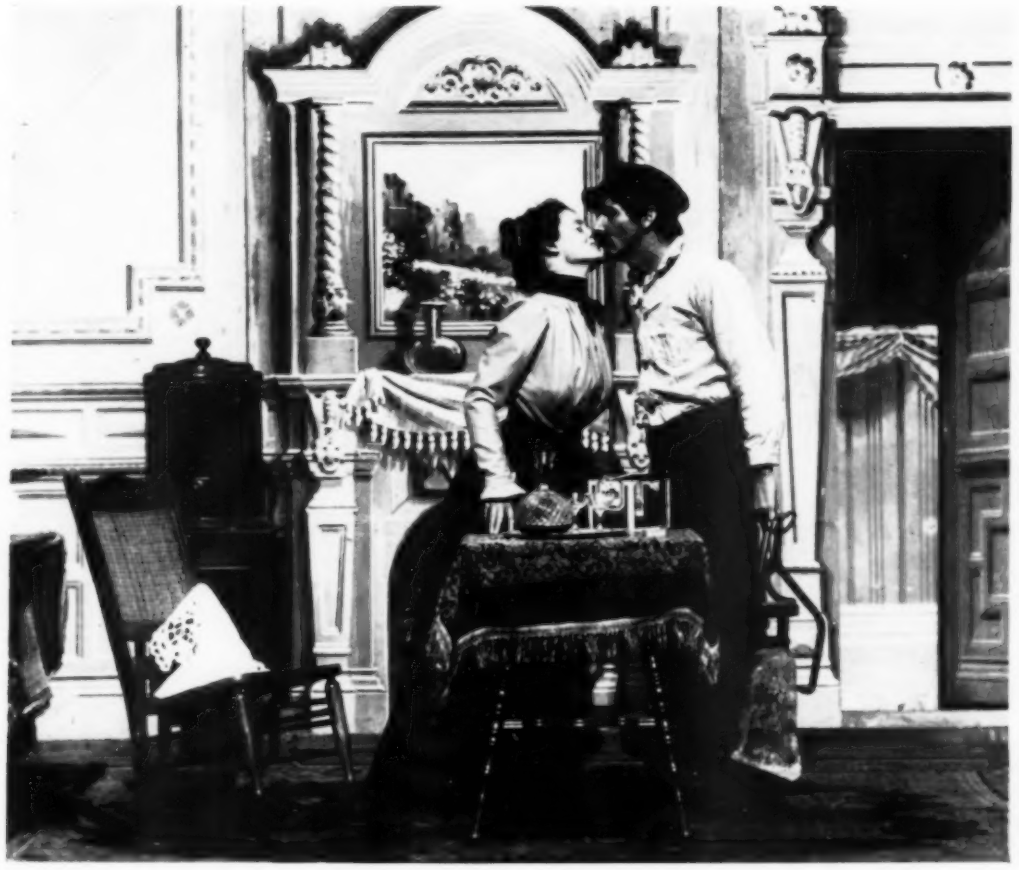
As is well known in dental circles, the mouth harbors countless millions of bacteria, mostly micrococci, which under lowered resistance or increased virulence may cause or predispose to disease. Also avirulent viruses are present which exist, usually as harmless commensalists, but which may flare up and become pathogenic. The author listed respiratory and contact diseases which might be transmitted by prolonged oral or lip kissing. They included colds, influenza, bronchitis, pneumonia, tuberculosis, diphtheria, scarlet fever, laryngitis, pharyngitis, herpes fibrilis (fever blisters), syphilis (primary stage only), mumps, whooping cough, measles, and epidemic meningitis. Sounds formidable, but actually the incidence of disease from kissing is low, because amorous youngsters, no matter how affectionate, think twice before indulging in promiscuous osculation, when respiratory illness is in evidence in either contracting parties. If they don't, they accept the calculated risk.

The kissing bugs are now being blamed for a very puzzling disease—glandular fever, or infectious mononucleosis. The symptoms are tiredness, pyrexia, severe exudative tonsilitis as lumps or pain in the neck, or sore throat from cervical or axillary gland enlargement. In severe cases a purpuric rash may appear on the trunk or petechia on the palate. The course of the acute disease is rarely longer than ten to fifteen days, but this may be followed by a period of weakness for some weeks and occasionally for months. Complications are relatively rare, and only a few fatal cases have been reported. No special treatment beyond rest is indicated. Controlled experiments have shown that antibiotics are ineffectual in treating this disease.

According to an editorial in The *British Medical Journal* which was published on July 30, 1955 states that this disease has plagued our hospitals and colleges, particularly the dormitory inmates. It is of some concern in the Armed Forces where it may occur sporadically. A recent 1955 summer epidemic in some British hospitals was so severe that wards were closed down and admissions stopped. The cause of infectious mononucleosis is not clear, but is probably due to a group of viruses of low infectivity. The aggulatination by Heterophile antibodies of sheep cells or Paul-Bunnel adsorption test is usually diagnostic. A common mode of transmission and infectious atria among college students, according to Hoagland (Ibid, 1955, 229) follows incidents of prolonged kissing.

He suggests "The virus present in pharyngeal se-

*A. H. Bryan, "Kissing Bugs," *Drug and Cosmetic Industry*, pp. 34-119, July, 1952.



CULVER PHOTO

cretions may be destroyed or inhibited by dilution with saline, or separation from the body (hence the failure of transmission experiments), but that it may be transmitted by intimate oral contact or by indirect transfer of saliva, as drinking from the same bottle." His observations would suggest a much longer incubation period than the usually accepted one to five, to fourteen days.

This thesis intrigued the author who frequently associated with students and internes who were now viewed as part of an epidemiological problem. In questioning infectious mononucleosis victims, students, usually unblushing, admitted enjoying prolonged osculating incidents prior to the onset of the disease.

In further investigations seeking a link between intimate, prolonged kissing and the epidemiology of glandular fever, the author met up with some sailors on an aircraft carrier (British) at the height of the summer epidemic. These love starved air and sea farers finally got themselves a furlough, which unhappily terminated quarantined in the sick bay—with, you guessed it, infectious mononucleosis.

Discrete quiries were unnecessary—you know what sailors are—just ask Mister Roberts—he knows. They boasted gleefully of prolonged, intimate episodes of oral contact. They called it submarine kissing in which donor and recipient break only when it's necessary to come up for air. The alternative is a double acting nasal snorkel, when the contracting parties may stay under ad infinitum.

Seriously though, this suspected epidemiology could readily be confirmed if a discrete anamensis (history) were included in the clinical investigation by physicians of cases coming to their attention. However, some cases are probably so mild as to escape diagnosis, being asymptomatic. The case incidence appears to increase during warm months or in overheated buildings which could again be confirmed by investigative statistical data. Also, the disease incidence is evidently much higher among the younger generation when young love finds bliss and esctasy in oral expression which literally says, "to hell with the kissing bugs."

Drug and cosmetic manufacturers should be vitally interested in the outcome of this research, because obviously oral *prophylaxis* should include broad spectrum antibacterial and antiviral mouth washes, antiseptic lipsticks, prolonged action tooth pastes, and antiseptic impregnated chewing gum and candy. Dentists and hygienists, druggists and teachers, alike should educate the public more than ever to the increasing importance of oral hygiene and cleanliness.

The advertising slogan "Kissing Sweet" still holds good for all kinds of oral and respiratory infections including infectious mononucleosis (glandular fever) with baby kissing taboo.

Protective Hand Preparations

by Harry Hilfer

Hand preparations which include among other things products such as hand lotions and hand creams are aimed primarily towards women who feel the need of a protective layer on the hands either to protect them from the harshness imparted by contact with soapy or detergent treated water or to cover the harshness after such a contact. In addition there are preparations designed to form protective films upon the hands to protect them against greases and oils. This latter type was much in demand by women engaged in factory work during the war.

The two types mentioned are of widely different functions and their formulas are also completely different. Indeed, the second type consists of relatively large percentages of water soluble humectants—ordinarily incompatible with hydrocarbon grease and oil and actually behaving as a repellent for such things, but hardly calculated to be a protective influence against aqueous media as well. In formulations of newer types of hand lotions and creams there has therefore been an attempt to produce a product which would function under all conditions. Several attempts have been made to approach this ideal and these will be discussed.

The well-known vanishing cream was probably the first attempt to combine a hydrophobic and hydrophylic substance in a single vehicle. In this case we have relatively large amounts of glycerol, large amounts of stearic acid and a relatively small amount of a soap (potassium stearate), which was the emulsifier. The dried film could conceivably act as a repellent against water and greases because of the presence of two substances insoluble in one or another of these media. Actually, however the presence of the soap had a tendency to re-emulsify the dehydrated layer when in contact with water. Immersion in a soapy water solution would of course accelerate the reformation of the emulsion so that the film would be removed even more quickly.

This deficiency was quickly realized and methods were taken to correct it. In one case the film was made more impervious to water by the addition of a relatively large amount of mineral oil, and though the soap emulsifier was still present, it greatly helped reduce the miscibility of the film with water. Preparations of this type are quite popular since this protective function has been greatly enhanced.

Another method of achieving a similar result is by the destruction of the emulsifying agent after application of the film and during its dehydration. This is accomplished by the addition of the emulsifier as an ammonium soap which during dehydration decomposes due to the property that ammonium soaps have in which the ammonia volatilizes with the water. The

COURTESY LEVER BROS.

dehydrated film therefore consists essentially of the humectant and stearic acid. Such a film would be more impervious to water than if an active emulsifier were present. This innovation therefore represented and still does represent an improvement. Much the same method is in fairly common use in formulation of floor waxes—where the emulsion is formed by a morpholine soap with the emulsifier destroyed through the volatilization of the morpholine after application.

Another popular hand cream has a more active water barrier incorporated by using a metallic soap as a part of the emulsion. One well-known product for example contains a sizable concentration of zinc sterate coupled with a large quantity of a humectant, held together in an emulsion with a soap. Such a preparation should act as a fairly good barrier against the usual materials with which the hands may have contact. The presence of the zinc stearate also contributes to the improvement of the smoothness of the film, a characteristic that is of the utmost importance since the principal reason for the use of these preparations is to enhance the smoothness of the hands.

The advent of the silicones has opened a new protective agency for hand preparations. They have been incorporated in a number of hand preparations to enhance the water protection that they offer. There is at least one preparation in which the silicones are introduced as part of an alcoholic water solution so that a thin film of the silicone may be applied as a water barrier. There is some argument as to whether such a film is more resistant to water and detergent solutions than mineral oil—for example. However recent published work indicates that the silicones have a more lasting effect, possibly because of a substantive effect which they may have in conjunction with proteins. If this is correct the efficacy of such a film would be expected to increase with daily use. Another advantage they may have over mineral oil is that they do not seem to transmit the characteristic greasy feel often associated with mineral oil. However silicones presently are expensive substances by comparison and whether or not they can be used in sufficiently large concentrations remains somewhat problematical.

There have recently been introduced to the market a number of hand preparations which have incorporated in them bacteriostatic agencies as well as the mechanical protective aids. These creams have therefore the additional property of arresting a possible infection at the source. When one considers that the hands are the most likely parts of the body to be subjected to contact with pathogenic organisms, the idea appears to have merit. Because of the presence of

(Continued on page 721)

Sugar-Free

COURTESY HOFFMANN-LA ROCHE, INC.

Tablet coating has changed very little during the past fifty years. Perhaps the conventional coating method is still the best, but other methods using recently discovered materials and techniques should be investigated. Sugar coating consists basically of five major steps, namely subcoating, smoothing coat, color coat, finishing coat, and polishing coat.[1] Each step requires much skill, dexterity, and time.

It should not be thought that there is a complete lack of interest in this field. Recent work has been carried out in this field and is acknowledged here.

Consolazio[2] showed that the disintegration time of tablets could be slowed down by coating either the granulation, or the finished product with cellulose acetate or nitrate.

Whitehouse[3] brought a new concept into the field when he published his paper on the pressure coating of tablets. The coating, in the form of a fine granulation is pressed on the tablets by punches, to give a uniform, tough-skinned, highly polished tablet coating.

A completely new approach to the conventional sugar coating procedure was introduced by Carroll and Spadaro.[4] The tablets were first given a subcoat of sucrose and then sealed with shellac. They were covered with terra alba, moistened with 10 per cent acacia, dusted with eighteen applications of Portland cement, and then thoroughly dried. Finally the tablets were coated with sucrose and gelatin, and then polished.

The use of cellulosic high polymers was investigated

Tablet Coating

by William H. Golod and C. Lee Huyck

DEPT. INDUSTRIAL PHARMACY, ST. LOUIS COLLEGE OF PHARMACY & ALLIED SCIENCES, ST. LOUIS 10, MO.

by Doerr, Serles, and Deardorff.[5] The polymers under investigation were sodium caroboxymethylcellulose and hydroxyethylcellulose. They first used a prime coat of arsenic-free shellac and allowed it to dry. They then applied alcoholic solutions of the cellulosic high polymers. The tablets were then polished in the conventional manner.

Chavkin and Gans[6] used a polyethylene glycol, Carbowax 6000. It was found that the tablets could best be coated by use of 50 per cent alcohol-carbowax solution. The coloring material was added directly to this mixture, and a suitable coating obtained. The tablets had to be heated to 50-55° for three hours to obtain a coating that would not chip.

Eli Lilly & Co.[7] has recently described their conventional sugar-coating procedure. In this procedure the emphasis is placed on the build up of the tablets rather than the coloring. Fifty subcoats of an acacia solution and dusting powder are first applied. At least thirty-five applications of smoothing coat composed of a concentrated sugar solution are then applied. After this, twenty-five half-strength, and fifteen full-strength applications of the color are applied. The tablets are then polished in the usual manner.

Some of these new methods might possibly be useful at the present time on a large scale. The purpose of this paper is not to evaluate the newer methods, but to describe a new technique using recently available materials as a substitute for the sugar-coating procedure.

Experimental

The tablets used in these studies were five grain sodium bicarbonate tablets made by granulating the sodium bicarbonate with 20 per cent acacia solution. The granulation was dried in an oven at 121° F. It was compressed to a hardness of 4 Kg. on a 11/32 deep concave punch. The pans used were made of stainless steel, attached to a shaft, and inserted into two ball-bearing sockets. This set-up was mounted on a platform, and the end of the shaft outfitted with a rachet. The three pans, connected by a bicycle chain, were rotated at equal speeds by a gear motor. Best results were obtained when the pans were loaded.

Five ml. of refined arsenic-free shellac, commercially known as Lac-Glaze, were diluted with five parts of isopropyl alcohol and divided equally among the three pans. Five applications of this solution were applied to seal the tablets. The tablets were allowed to roll in the pans until they became free from each other, and a strong, cold air blast was applied. They were then placed on trays for thirty minutes to insure complete drying.

The tablets were returned to the pans and the coating solution was applied. This solution was prepared by dissolving 1 Gm. of Carboxymethyl cellulose-medium 70, in 80 ml. of boiling distilled water. Twenty Gm. of melted Carbowax 6000 were added to this solution, with thorough mixing. After the solution had cooled to room temperature, 20 ml. of isopropyl alcohol was added to the mixture. An aqueous stock solution of F.D.C. certified dye was prepared and added directly to the coating mixture.

Twenty-four 1 ml. applications of this very light coloring solution were applied to each pan of tablets. When the tablets began to roll free from each other, a strong, cold air blast was used. The sliding of the tablets in the pan was an indication that they were dry, and the next application could be applied. After the twenty-four applications had been made, the tablets were removed from the pans, and the pans cleaned.

To three separate 100 ml. portions of the stock Solution, 0.5, 1.0, and 1.5 Gm. of coloring material was added. These solutions were applied to the tablets in order of their increasing strength. Twelve 1 ml. application of the coloring solution were applied, following the same procedure as outlined above. After each coloring solution had been applied, the tablets were removed from the pans. When the last full-strength color application had been applied, the tablets were allowed to slide in the pans for an additional thirty minutes, enabling them to become highly polished. They were then set on trays, and allowed to remain at room temperature for one hour to insure complete drying and toughening of the coat.

Discussion

The tablets made in this manner were pharmaceutically elegant in appearance, even though the finished tablets had retained the same shape as the uncoated tablets. No difficulty was encountered in covering the edges of the tablets, even though they had not been initially built up. To determine if the tablets had been completely covered, thirty tablets were immersed in an amaranth solution for fifteen seconds. They were then dried, and each was divided in half. The

(Continued on page 700)

SURFACTANTS in Shampoo Formulations

by T. H. Elder, Jr. and Carl Pacifico

AMERICAN ALCOLAC CORP.

The formulation of shampoos is still a highly skilled art. Knowledge in this field is gained slowly and painfully at considerable expense in the laboratory and test salons. As a result, existing knowledge is carefully guarded by those who have it and relatively little information is published of the status of the shampoo market. The present survey may therefore be of value to those for whom a general orientation in the subject is adequate.

One of the major reasons that a general rather than a specific survey is desirable is that this is a highly volatile field. Shampoo formulations are constantly being changed, not only through minor modification of the proportion of the ingredients used but through completely reformulations. New shampoo products are frequently being introduced, often resulting in the elimination of older products in the manufacturer's line. In addition, as with most consumer products, frequent advertising campaigns substantially alter, either temporarily or permanently, the share of the market held by any brand. This makes for an interesting and exciting field, tough on the researcher, profitable for the advertising agencies, and frustrating for the market researcher who normally delights in specific detail.

In 1954, the last year for which figures are available, the total cosmetic market at retail amounted to more than $1,000,000,000. Of this, shampoo sales constituted a tidy $117,000,000, up $2 million dollars over 1953. As might be expected for so rich a prize, this market has attracted all of the major companies concerned with the retail marketing of surface active chemicals. In addition to the giants, there is a relatively large number of small companies who make and sell locally to a tiny portion of the market. For example, at any given time there are usually about 15 to 18 brands of liquid shampoo which comprise about 99 per cent of the market, but more than 100 additional brands share the other one per cent. Similarly, in a recent count, it was found that there were 15 principal brands of creme shampoo, with 80 additional brands sharing about two per cent of the market. There is only limited brand loyalty among shampoo users, however. While one-third to one-half of the consumers regularly use their preferred brand, a large portion of the market is particularly sensitive to product improvements.

The more important shampoo brands and their manufacturers are shown in Table 1.

All of the important shampoos in the United States are supplied in one of three physical forms. These are clear liquid, lotion and creme. Powdered shampoos are being sold successfully in Europe but have found no market in the United States.

Considerable technical work has been done on aerosol shampoos but to date the corrosion of the metal cans has prevented commercialization. To minimize the problem of corrosion, glass containers have been used. This involves a new set of problems,

TABLE 1

PRINCIPAL SHAMPOOS

Trade names	Type	Manufacturer
Charles Antell	Liquid	Charles Antell
Avon	Liquid, Creme	Avon Products Inc.
Breck	Liquid	John H Breck Inc.
Conti Castile	Liquid	J. B. Williams
Helene Curtis	Liquid, Creme	Helene Curtis Sales Inc.
Dial	Liquid	Armour & Co.
Drene	Liquid	Procter & Gamble
Fitch	Liquid	Grove Laboratories
Furst McNess	Lotion	Furst-McNess
Halo	Liquid	Colgate-Palmolive
Richard Hudnut	Liquid	Warner-Lambert
Laco	Liquid	Laco
Lanolin Plus	Lotion	Lanolin Plus Mfg. Co.
Lustre Creme	Creme	Colgate-Palmolive
Mennen	Lotion	Mennen Co.
Modart	Creme	LaMour
Pamper	Liquid	Toni Co.
Prell	Jell	Procter & Gamble
Rawleigh	Lotion	Rawleigh
Shasta	Creme	Procter & Gamble
Stanley	Liquid	Stanley Home Products
Studio Girl	Creme	Nassour Bros.
Toni	Creme	Toni Co.
Velvet Touch	Creme	Richard Hudnut
Vita Fluff	Creme	Duon, Inc.
Watkins	Lotion	J. R. Watkins Co.
White Rain	Liquid	Toni Co.
Wildroot	Liquid	Wildroot Co.
Woodbury	Liquid	Andrew Jergens

perhaps less formidable then those of corrosion, as aerosols of low pressure are required with the glass container. A pioneer product has been introduced in test areas.

Many of the shampoos offered feature special ingredients, notably egg, germicides, lanolin and chlorophyll. No doubt their manufacturers will resent having these products unceremoniously grouped with the basic shampoos, but the portion of the formulation with which this paper is concerned, the surfactant used, is almost always the same as those of standard shampoos.

TABLE 2

TYPICAL RETAIL PRICES OF SHAMPOOS

Synthetic	Price	Active Agent
Clear Liquid	$2.10 per lb.	23 per cent
Lotion	2.50 "	18 per cent
Cream	3.50 "	25 per cent
Soap		
Clear Liquid	1.25 "	25 per cent

There is considerable variation in the retail price of the various types of shampoos. Prices vary considerably even among products of the same physical form. There is also variation in price from area to area. As a guide, prices of typical members of each class are shown in Table 2. The active agent content of each type is also shown for comparison. It must

(Continued on page 714)

COURTESY TUSSY

The DRUG DISTRIBUTION Fight

The distribution picture in drug products is changing materially. However, the organizations representing the retail pharmacies are fighting this change tooth and nail. The manufacturers of drug products, principally the manufacturers of drug products advertised to the public (generally known as manufacturers of proprietary medicines) are trying in every way to broaden the distribution of their products by breaking down the barriers which organized retail pharmacy has erected against sale of most drug products in outlets other than licensed drug stores.

While this basic struggle over the distribution of drug products goes back many years, it has become greatly intensified in recent years due to the increased population of the country, the increased income level of the people of the country, the move to the suburbs with its attending tendency of families to do their shopping to a great extent in super-market grocery stores or in similar outlets which mainly handle merchandise other than drugs, and which do not have their drugs departmentalized under one or more registered pharmacists. And because of the fact that manufacturers today openly sell to grocery and other outlets, whereas some years ago some of these same manufacturers would not dare openly make such sales, the Proprietary Association as well as individual manufacturers are willing to fight their case openly in the courts and legislative halls of the nation.

A reason why the manufacturers today are in a far better position in their fight against present restrictions placed upon the sale of drug products is the steadily increasing public interest in health and remedial agents, as well as the great and still increasing fund of public knowledge in matters of health. Everyone knows that the public generally has a very wide knowledge concerning the remedial agents which they need to maintain their health and that of the members of their families. And now—due to the amendment of the Food, Drug, and Cosmetic Act by the Durham-Humphrey Act—drug products under the Federal law are divided into two classes—those drugs which are not safe for sale over-the-counter and which must be sold only on prescription, and those drugs which are safe for self-medication and which therefore may be sold over-the-counter. This amendment to the law, which was fought for most strongly by organized retail pharmacy, has produced a state of affairs under the law which is more favorable to the manufacturers from a distribution angle than to the retail pharmacists. The provision of the amendment against prescription renewals is proving very unsatisfactory to retail pharmacists, but that is another matter with which we are not concerned here.

However, the state pharmacy organizations and state boards of pharmacy who attempt to interpret and enforce the state pharmacy acts in the various states take the position that merely because a drug preparation is included in the U. S. Pharmacopoeia, its sale must be restricted to drug stores, or at least, to sale under the supervision of a registered pharmacist. This many manufacturers object to, and recently a suit was instituted in New Jersey on this point. The suit was brought by the New Jersey Board of Pharmacy against American stores charging violation of the New Jersey State Pharmacy Act in selling Bayer's Aspirin and Phillip's Milk of Magnesia in stores which did not have registered pharmacists to supervise the sales.

Counsel for the manufacturers joined with counsel for the American Stores in defense of the suit. The defense presented the argument that both Bayer's

Aspirin and Phillip's Milk of Magnesia were original discoveries of the makers and that they had been patented. Merely because the patents had expired was no reason why these products should not be considered unique, they contended. They further argued that these were trademarked products, and contended that both of these products were manufactured by methods which are employed by none of the other makers of either of the products. They therefore claimed that these two drug preparations were entitled to exemption under the restrictive sales provisions of the act.

A decision was handed down in this suit last month in favor of American Stores. Judge Edward Martino of the District Court of Camden, New Jersey, decided that Bayer's Aspirin and Phillip's Milk of Magnesia are the type of products that the legislature intended to come within the scope of the exemption clause contained in the New Jersey State Pharmacy Act.

That this decision will be appealed seems a certainty. However, this suit, and the result in the lower court, indicates clearly that manufacturers are determined to fight restrictive sales product by product, if necessary, in order to break down what they consider is totally unwarranted interpretation of the state pharmacy acts. Naturally enough, the manufacturers would rather bring about the desired change in restrictive without fighting in the courts or in the legislative halls which they are also determined to do if the state boards of pharmacy are unwilling to liberalize their interpretations of the state pharmacy acts with regard to restrictive sales.

Organized retail pharmacy should realize that the longer they continue to interpret these laws in a narrow way, the greater is going to be the change when it does come. If they continue to insist upon complete restriction to drug stores of all products contained in the U.S.P., they might find a steadily increasing segment of the population coming to the realization that such a policy is just not right. And when this segment becomes large enough and vociferous enough, a change will be demanded and will come. Naturally, this change will be effected by the legislation if the state boards do not change their attitudes. And if such legislation is written and enacted, it will probably make possible the sale in outlets other than drug stores of a wide range of preparations which manufacturers today have no intention of selling through channels other than drug stores. For its own good, retail organized pharmacy should face the fact that conditions have changed in the distribution of drug preparations just as they have in most other things. They must face up to the fact that they cannot continue their monopoly of the sale of drug products any longer and that their right to do so is to be seriously and continuously challenged in the courts and in the legislative halls of the nation from now on.

Drug manufacturers of all types are vitally interested in the welfare of the retail druggists of the nation. They spend large sums of money each year to protect this welfare. They realize that without economically healthy retail drug trade, the distribution of their products would be seriously handicapped. Manufacturers of prescription products would not be able to effect distribution of their products without retail druggists. And for this reason, these manufacturers pretty much restrict to the retail druggist the sale of their over-the-counter products which are not advertised to the public.

Proprietary drug manufacturers and manufacturers of both ethical and proprietary drug preparations

(*Continued on page 707*)

Labeling of Cosmetics

by Harold D. Goulden

SCIENTIFIC DIRECTOR, TOILET GOODS ASSOCIATION

Herein will be set forth what must appear on the label of a cosmetic to bring it into conformity with the Federal Food, Drug and Cosmetic Act. No differentiation will be made between those requirements which are specifically stated in the law and those which find their source in regulations promulgated under authority of the Act.

It would seem desirable to have a clear understanding of what is a cosmetic, a drug, a label and labeling. Quite naturally the definitions are quoted from Section 201 of the Act.

(**i**) "The term 'cosmetic' means (1) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and (2) articles intended for use as a component of any such articles; except that such term shall not include soap."

(**g**) "The term 'Drug' means (1) articles recognized in the official United States Pharmacopoeia, Official Homoepathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (2) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (3) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (4) articles intended for use as a component of any articles specified in clause (1), (2), or (3); but does not include devices or their components, parts, or accessories."

(**k**) "The term 'label' means a display of written, printed, or graphic matter upon the immediate container of any article; and a requirement made by or under authority of this Act that any word, statement, or other information appear on the label shall not be considered to be complied with unless such word, statement, or other information also appears on the outside container or wrapper, if any there be, of the retail package of such article, or is easily legible through the outside container or wrapper."

(**l**) "The term 'immediate container' does not include package liners."

(**m**) "The term 'labeling' means all labels and other written, printed, or graphic matter (1) upon any article or any of its containers or wrappers, or (2) accompanying such article."

It should be pointed out that all written, printed or graphic matter which accompanies any article at any time while such article is in interstate commerce

or is being held for sale after shipment in interstate commerce will be considered labeling. The courts have been quite liberal in defining accompanying printed matter as labeling.

The definitions of a drug and cosmetic are not mutually exclusive, therefore one may have a product which is both a drug and a cosmetic and hence both the cosmetic and drug provisions of the Act apply to this product. The Labeling of products of this type will be discussed later.

What Must Be on the Label of a Cosmetic?

1. The name, place of business and address of the manufacturer, packer or distributor. If the manufacturer is also the distributor the name and address are sufficient, however, if the distributor is not the manufacturer then the words "distributor," "distributed by," "packed for," or such words as actually describe the situation must be used along with the name. The word "distributor" or its equivalent may not be abbreviated. The city and state will be sufficient for an address provided the distributor is listed in a city or telephone directory.

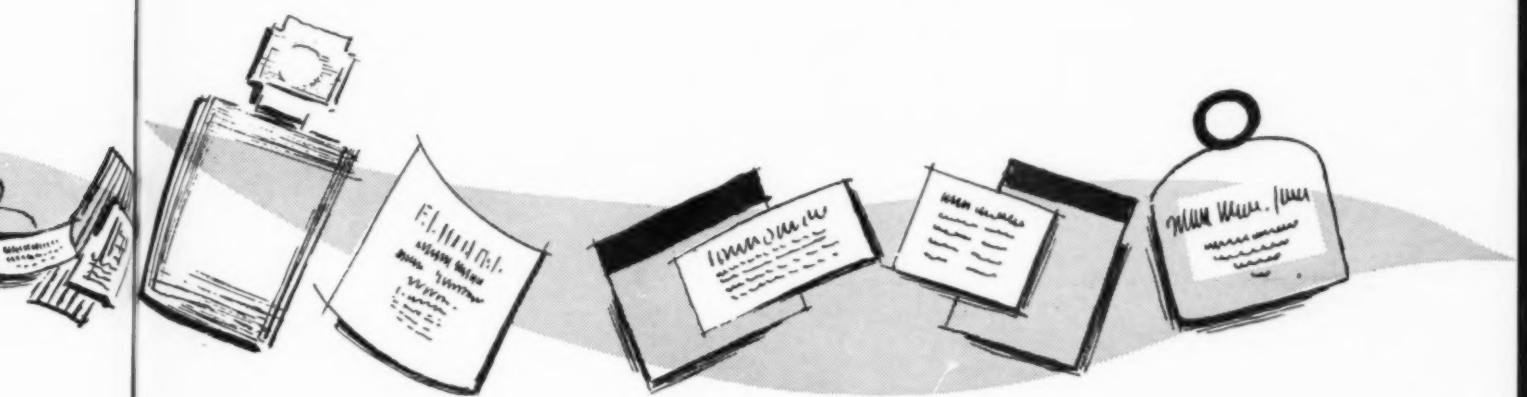
2. An accurate statement of the quantity of contents must also appear on the label. The statement of net contents is not required on containers containing less than ¼ avoirdupois ounce and 1/8 fluid ounce.

In the case of solids or semi-solids, the statement must be made in terms of the avoirdupois pound and ounce. This should be stated as net weight—oz. In the case of liquids, the statement must be made in terms of the United States gallon of 231 cubic inches and subdivisions thereof. This should be stated as net—fl. oz.

Net content statements must reduce a common fraction to its lowest terms and a decimal fraction shall not be carried out to more than two places. It is not permissible to substitute the metric system of weight or measure for the above mentioned systems, however, the metric system may be used to supplement the required system.

If the quantity of a cosmetic in a package equals or exceeds the smallest unit of weight or measure then the net contents statement shall state the number of the largest units contained in the package; for example, the net contents of a package containing 20 avoirdupois ounces would be stated as 1¼ lbs. or 1 lb. 4 oz. and that containing 16 fl. oz. would be stated as 1 pint. One containing 1¾ qts. may be so stated or may be stated thus 1 qt. 1½ pts. or 1 qt. 1 pt. 8 fl. oz.

3. If a cosmetic is also a drug then a statement of the active ingredients must appear on the principal (front) label. Examples of products which may be both cosmetics and drugs are antiperspirants, hormone creams and antiseptic products. The common or usual name of the ingredients must be used. The kind and quantity of any alcohol contained in the product must be stated on the label. If the alcohol is ethanol then—Alcohol 20 per cent by volume will meet label requirements. However if it is ispropyl alcohol, that name must be used. In those cases where the product is also a drug, complete and adequate directions for the safe use of the product must be a part of the label, and in the case of some products adequate statements warning against improper or misuse must appear on the label. These statements, however, need not appear on the principal (front) label.



Where Must This Information Appear?

All of the information required above, except as otherwise noted, must appear on the principal label and it must be repeated on any and all cartons in which the container is packaged, excepting the shipping carton. The principal label may be considered as the one most likely to be displayed to the customer at the point of sale.

Placing the required information on the bottom of a package or other inconspicuous place would be in violation unless the package contained no identifying shape, devices, or words on any part of the package.

The required information must be "prominently

(*Continued on page 709*)

RESEARCH Looks At ADVERTISING*

by Berton J. Todd
VICE-PRESIDENT ORTHO PHARMACEUTICAL CORPORATION

Inasmuch as I have worked in Advertising as well as in Research, it occurred to me that a discussion of how these two groups can benefit one another by working together might be of interest.

Before we get to talking about Advertising, let's see if we can put the researcher in the spotlight. One usually thinks of him as a crack-pot in an ivory tower, and in many cases this is true. However, a great many laboratory men started out just like us all. There are in this group a lot of pharmacists and chemists, but the extroverts go into the business end of the business and the introverts go to the lab. If I could help you understand the research organization, maybe they'd be easier for you to work with. Most research organizations are a reflection of the man who runs them.

Very often the man who can do you the most good in putting forward a good story is the man who invented the product. And now we get down to the main problem of coordinating research and advertising.

One of my biggest problems in Advertising, when I was in it, was that Research didn't give me enough information on new things.

Another was that they would often work on items that had no potential and no appeal. I have found, however, that the lab will give you all the information you want if you know what you want and if you are reasonable.

Some one asked me to bring up the question of keeping the Advertising Department posted on what is going on in Research. Most research labs have project meetings where teams get together and talk about how the project is doing. I invite our advertising men to these meetings.

Research people study advertising quite a bit. They try to find out what competition is doing. I look at an ad usually with this point of view. What's the purpose of it? What's the news? Very often in putting out the story on a product, we forget the news.

Perhaps we should stop and think: How does it fit in with the present scheme of therapy? Is it better, safer, cheaper, more effective or what makes it different? But many pages fail to bring to the reader a reason for bringing the ad to his attention.

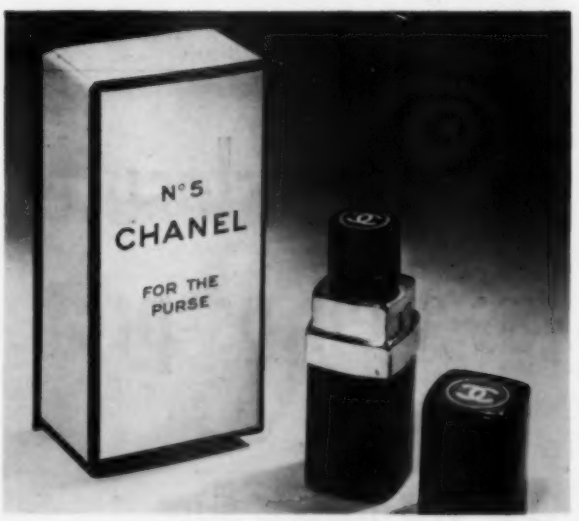
Probably few of us realize the speed with which medical practice changes. A particular therapeutic technique has but a few years of popularity. Because of this, it is important for the promotion departments to work closely with research in order that, first, research be thoroughly acquainted with what the need is for new products; secondly, advertising be well acquainted with what is coming in the way of new things. It is important that both groups be well informed.

Now, I would like to tell you a little bit about research people and research organizations. The average research organization is, of course, composed almost entirely of technical people—men who very often have little notion as to what the business needs. Usually they have had no experience in supporting a business. And they have had little contact with the marketing problem. Scientists have a tendency to work on ideas that strike their fancy. Many of these men have spent years in school where the emphasis was on study. When they join the commercial world where they must produce, some of them become somewhat confused. However, as you know, the most important thing that can happen to a pharmaceutical business is to bring out the right thing at the right time. Folks in marketing and advertising can help tremendously in making this possible. They can help research find out what medicine needs. And they can find out what the doctor needs to do his job better.

(Continued on page 700)

*Delivered before Pharmaceutical Advertising Club, Sept. 8, 1955.

Packaging and Selling



Chanel, Inc., has just designed a 1¼-dram refillable bottle, its first purse-size container, for Chanel No. 5. Called "Chanel No. 5 For the Purse," the square bottle fits snugly inside a black container made of anodized aluminum. Anodyzing is a color process in which the color becomes a surface part of the aluminum, with the result that it will not chip, although it can be scratched.

There is a foam rubber base inside the aluminum case which supports and protects the bottle. The Phenolic cap has a Buna B rubber composition liner which is resistant to nearly all essential oils and ingredients of perfumes, while the mouth of the bottle is wide enough to permit easy refilling.

For sale in some stores early this month, this Chanel No. 5 For the Purse matches a larger lipstick container that Chanel has had on the market for some time.

The original design of the new Chanel Purser, as created in Paris, was modeled in aluminum and brass by the casting process. The product resulting from this method was most attractive but production would have been slow and unit costs unreasonably high.

The problem of redesigning the individual parts so that they could be adapted to volume production from sheet brass and aluminum, and without in any way affecting the quality or eye-appeal of the Purser, was assigned to the Scovill Manufacturing Company of Waterbury, Connecticut. Other requirements placed on the producer were that the unusual shape and size must be retained along with the full one-and-one-quarter dram capacity.

To bring out the full decorative values of deep black and gold, the black anodizing process was applied over polished aluminum, thereby attaining a strikingly effective contrast with the highly polished, rich brass center band.

Modern closures should attract as well as protect

So we make sure the closure you select does both jobs well

In seconds your product has to attract the customer—has to provide the information wanted—quantity, price, sales points. Your Owens-Illinois Closure can help perform this marketing function. At the same time it gives your product utmost protection—utmost convenience in use.

Careful cap design by specialists gives you a closure with sales appeal and easy readability.

Your product is protected—safe from evaporation—safe from contamination. The Owens-Illinois Tacseal innerliner seals tight—is tamperproof.

A good closure must seal well, yet be easy to remove and replace. This Owens-Illinois torque tester tells how much pressure is necessary for good sealing and easy removal.

BEFORE. Here the closure provides protection but lacks that extra showmanship needed to make quick sales at the point of purchase.

AFTER. The desired result—an attractive closure that adds to the appearance of your product—protects and does a selling job.

METAL AND PLASTIC CLOSURES
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Stop the Eye...Start the Sale...

You've just made a sale. Her eye was caught by *your* product in its distinctive *blue* bottle and she's going to buy. That's not strange. Maryland Blue is a powerful salesman. It stops the eye in the store . . . invites use in window and counter displays . . . acts as a constant reminder in the home. It imparts to your product the integrity and quality that has been associated with blue through the centuries.

See for yourself why leading firms utilize Maryland Blue's rich color as an advertising, merchandising, and selling tool. Write for samples today. No obligation, of course.

MARYLAND GLASS CORPORATION, Baltimore 30, Maryland.

Pack to attract
in Maryland Blue

Also available in clear glass

Selecting and Training PACKAGING PERSONNEL*

by C. H. Parsons,
MANAGER, FILLING AND PACKING SECTION,
LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY

Packaging Labor represents 80 to 90 per cent of all direct labor in the consumer goods industries. The cost of this labor continues to go up with a resulting pressure to obtain the most productive workers.

Seniority rights and other organized pressures of labor made it more difficult to discharge workers of less than average skills.

Packaging operations are going through a period of active growth and development. We are using more machines, faster machines and more complex machines. As this occurs, we need skilled rather than unskilled workers and the quality of our supervisors must improve to meet these new demands.

As a preliminary to selecting and training of packaging line personnel, it is very important that we have job descriptions. These will vary in each company and change with time. By proper use of up-to-date job descriptions, it is possible to have a clear understanding of what kind of person we are trying to select and what we should be training them to do.

During the past 20 years, many of us have heard various stories concerning the use of tests in selecting workers for various types of work. Reports and opinions have varied from extreme optimism concerning their value to utter denial of their worth. At the present time, it can be stated that there are tests which, if properly applied, will be of significant assistance in selecting packaging line personnel.

Drawing from my own plant experience, I would like to illustrate this point.

A study was begun over a year ago to try and use tests in selecting our beginning packing personnel. These are women workers, classified as packers in our plant, frequently finishers in other plants. They are the workers who do the many assembly jobs on conveyor lines.

Our first consideration was the use of a simple dexterity test. The selection of a test was done by our personnel department with the help of the specialist. Before accepting the test, it was validated by testing 107 applicants and then correlating the results with their performance on the job. The first table illustrates the results. Summarizing the results as illustrated, an applicant who is in the fastest fifth on the test is three times as likely to be classified in the upper half as a packer than an applicant who scores in the slowest fifth. Success on the job in this project was measured by means of supervisor's ratings of the new employees who had completed a successful probationary period.

A second series of tests were put on which included, the adaptability test, measuring capacity to learn; a

PHOTOS COURTESY LEDERLE LABORATORIES

*Presented at the 17th Annual Forum of the Packaging Institute, October 31 to November 2, 1955.

THE *Aerosol Valve* FOR YOUR PRODUCT *by Precision*

The picture tells a story... the story of overwhelming popularity, tremendous growth and continued reliance on a quality product... PRECISION VALVE.

The use of over 200,000,000 time-tested valves by hundreds of completely satisfied customers throughout the world, is your assurance that PRECISION has the answer to your aerosol program regardless of product or container.

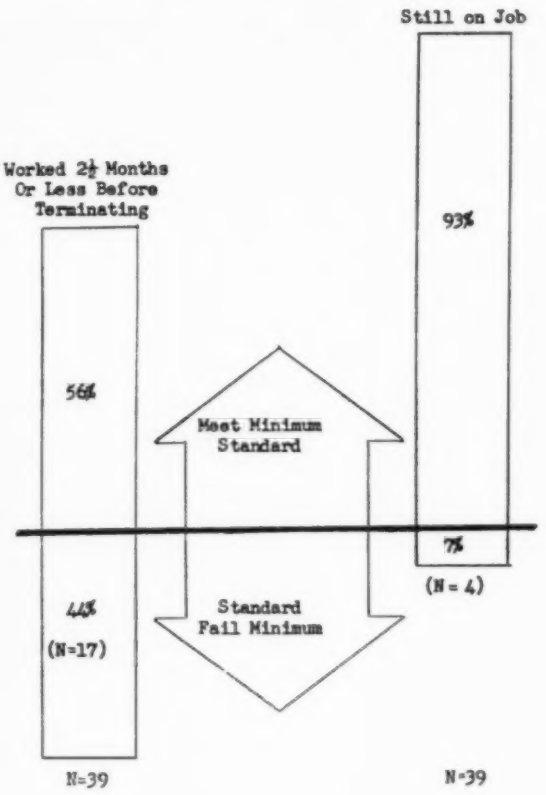
We invite your inquiry to enable our staff of aerosol valve technicians to work cooperatively in satisfying your valve requirements.

PRECISION

Precision Valve Corporation

700 NEPPERHAN AVENUE • YONKERS 3, NEW YORK

RELATIONSHIP BETWEEN MINIMUM SELECTION STANDARDS FOR PACKERS AND TENURE



number comparison test, measuring capacity to perceive a series of numbers rapidly and correctly and a job preference survey. These tests did not relate significantly to success on the job, but did, however, relate to job tenure. The second table illustrates these results. Somewhat more than six out of seven applicants failing the minimum standards terminated within two and one half months, or an average of about nine weeks. At a cost of $200 to hire and start a new employee, the value of this series of tests is quite apparent.

These results have proved the value of proper tests, used by qualified people in helping select better workers. We know of many companies that are experiencing similar success with tests. Two points should be emphasized, that the selection and putting on of the tests is a job for specialists. There is every reason to feel that advances will continue in this field, but we must use the same patience and consideration in developing this tool as we give to the development of a new packaging machine.

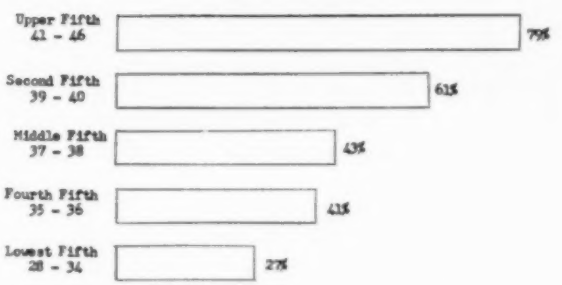
We are all aware of other general screening devices used in selecting packers as well as any employee in the personnel department of our company. These include usual physical checks, such as screening for security and general appearance. In most companies it has been found desirable, following the screening and testing by the personnel department, to send applicants to the packing department for final acceptance.

The interview of an applicant for packing work by packing supervision is important. In most companies, this includes a brief trip through the packing room. By doing this, it is possible to detect the worker who would be unhappy and unsuccessful if employed on a moving belt or around a noisy machine. Other people would be eliminated because in the brief trip in the packing area it is found that the applicant would be nervous working in a large area surrounded by people and with a supervisor at her elbow. One case has been found where the sound of clanging glass bottles caused unusual nervous irritation. The more desirable employee likes the atmosphere of activity, the sociability of the packing table and finds the machinery a source of fascination. Incidentally, a person with a good sense of rhythm frequently develops into a better-than-average machine operator.

Once hired, it is important to train the employees to bring them to maximum productivity as soon as possible. In Union plants, it is also important to determine during a probation period of four to six weeks, whether an employee is to be retained, as after this probation period, it is much more difficult to discharge the borderline worker.

There are two major methods of training packaging

CHANCES IN 100 THAT A GIRL WILL RANK IN THE UPPER HALF



line workers. The first and most generally used, is that of assigning new workers to an old and dependable employee. In some cases, this method is formalized by giving the old and dependable worker a special classification, such as "Instructress" and a higher pay rate. A second method, and one we have found workable, is the use of a training table. In this case, new workers are put together on one packaging table where they are given special attention and trained in fundamental operations. The supervisor is carefully chosen to handle this line, particularly for teaching ability. At the beginning, the use of proper methods is stressed and later, the speed is developed. Time is taken while on the training line to show the new worker a museum of horrors—errors in packaging that the worker should guard against, such as a label upside down. After a short period on this line, the time depending on individual abilities, the worker is put on other

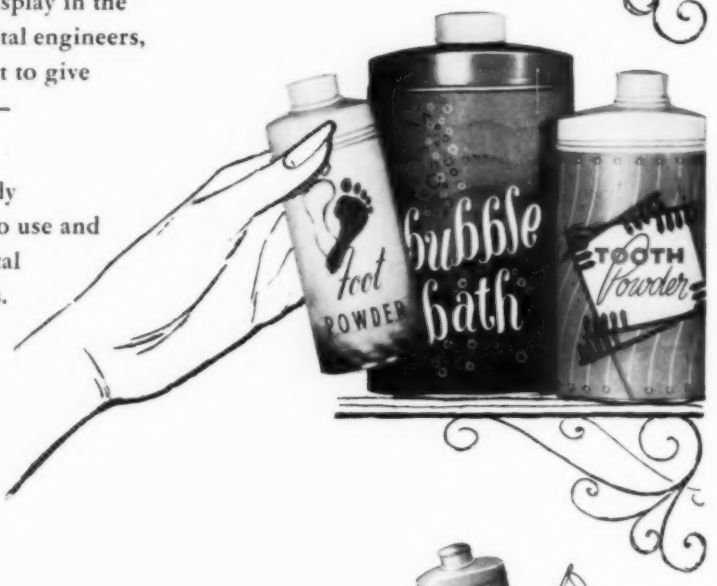
(Continued on page 701)

Continental gives personal packages

Your Personal touch

We're well aware of the place of honor that proprietary products hold in every woman's home. We know, too, how some packages wear out their welcome after weeks or months of display in the bathroom or boudoir. That's why Continental engineers, designers and lithographers spare no effort to give proprietary packages your personal touch—one that continues to please.

Once completed, these containers are sturdy protectors of fragrance and texture, a joy to use and a pleasure to look at. You'll find Continental service, too, is tailor-made to fit your plans. From deliveries on down the line—very personally yours.



Our Fiftieth Year of Tailor-Made Packaging

CONTINENTAL CAN COMPANY

EASTERN DIVISION: 100 E. 42nd St., New York 17
CENTRAL DIVISION: 135 So. La Salle St., Chicago 3
PACIFIC DIVISION: Russ Building, San Francisco 4

AVON packaging party for suppliers

Left to right, Russel Rooks, executive vice-president, Avon Products, Inc.; Frazer V. Sinclair, editor, Beauty Fashion; and John A. Ewald, Avon president.

Avon Products, Inc., the world's largest cosmetic company, held a premier showing of its new Christmas gift packages for the company's suppliers on October 14 at the Hotel Savoy Plaza in New York. This may not have been the first time a cosmetic manufacturer has invited participating suppliers to an exclusive preview of the finished products, nor the first time a manufacturer has called his suppliers together in a friendly meeting to acknowledge the importance of a mutual responsibility and cooperation in completing, in a successful way, these new products.

It was, however, a landmark in this industry in showing a fine degree of cooperative spirit with suppliers and an understanding that this kind of partnership accomplishes effective results.

This was a highly unusual showing because the guests were not representatives of any of the people who will either buy or sell these Christmas gifts. And they were not representatives of the Press, or any other audience that would generate publicity for this new showing.

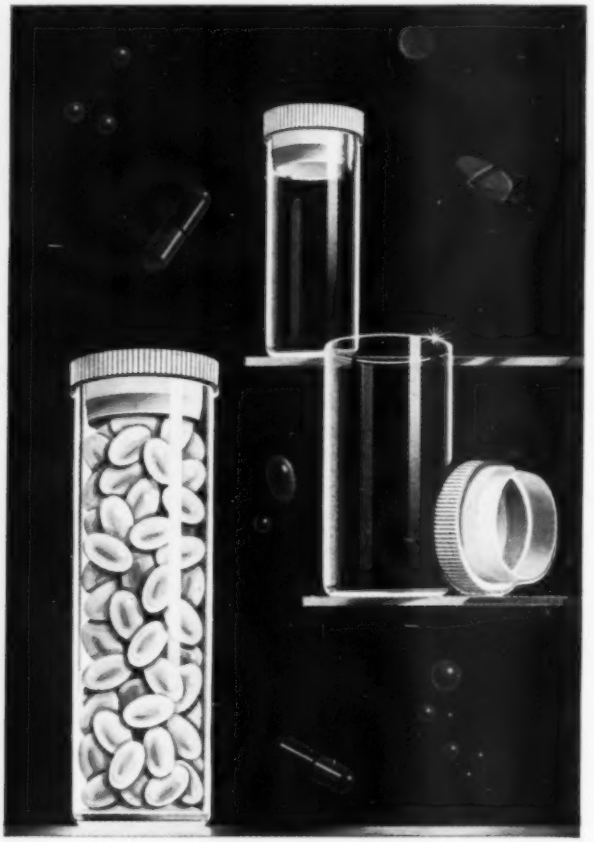
The people who attended this reception all participated in a close and intimate way with the creation and development of these Christmas packages. So far as the guests were concerned, they were the representatives of a wide variety and assortment of package and package supply companies. These were the people who are manufacturing and selling, for Avon, all of the various packages and packaging materials which entered into this large and beautiful and assorted line of Christmas packages.

Wayne Hicklin, vice-president of Avon, in his opening words paid tribute to these suppliers for their help and cooperation in making packages which represented the finest quality possible on a basis which would enable the company to operate on a national basis.

He also introduced the three Avon executives who were chiefly responsible for the creation and develop-

NOW...every dry product can have the sales plus of sparkling glass containers

Kimble Opticlear Vials are available in 1, 3, 5, 7, 10, and 12-dram sizes. The tooled neck of the vial and special stopper provide positive protection against moisture-vapor transmission.



Kimble Opticlear Shell Vials are available in 1, 2, 3, 4, 5, 7, 10, and 12-dram sizes. Note that the polyethelene stoppers are hollow, providing more room for contents.

KIMBLE OPTICLEAR VIALS...KIMBLE OPTICLEAR SHELL VIALS

the aristocrat of all packages — *designed and priced for mass packaging*

YOU CAN GIVE your dry products the sales advantages of a sparkling-clear glass container—*no matter what your cost requirements.*

Kimble Opticlear Vials are the aristocrat of all packages. They are the finest glass containers available anywhere . . . are first choice by leading companies whose products demand an unusually fine and exceptional container.

Kimble Opticlear Shell Vials are designed, produced—*and priced*—to make it practical for mass packaging almost any dry product.

Both of these Kimble Vials have crystal-clear clarity, gleaming beauty, unusually high moisture-vapor resistance. They are light and sturdy. The sparkling clarity of the glass provides perfect vision of contents, permits labeling either inside or outside.

Both Kimble Vials have special, resilient, plastic stoppers to keep contents fresh and clean... free from dust, dirt and moisture. Even after stoppers are removed and replaced repeatedly, they reseal tightly . . . are always easy to use.

Decide now to give your dry products the advantages of sparkling glass containers. Write for information, prices and free samples. Kimble Glass Company, subsidiary of Owens-Illinois, Toledo 1, Ohio.

KIMBLE GLASS VIALS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Display of Avon's 1955 Christmas line

ment of the creative packaging, promotion and advertising—Max Roger, the art director; N. C. Chadwick, vice-president in charge of promotion; and George Shine, the advertising manager.

According to Wayne Hicklin, Avon's Christmas packages must certainly have been subject to a more extensive and more critical panel audience than any of the Christmas packages which will appear this season. In a series of meetings across the country, over 50,000 Avon representatives have seen and applauded these new packages.

The theme, in addition to the originality and beauty shown in the creation of many of these new Christmas packages, is the constant emphasis on originality, usefulness, and variety.

The Christmas catalogue for Avon's sales representatives is a beautiful book of four-color plates with 73 gift suggestions. We wish, too, we could remember how many carloads of paper he said that it took to produce these catalogues.

According to Russel Rooks, executive vice-president, the Christmas selling this year will be in line with the traditional sales formula that has made Avon such a leader of cosmetic sales success. That is, these gift products will be merchandised with the sales representatives through the printed word, such as the beautiful Christmas catalogue, and by sales meetings, and at these sales meetings presenting and emphasizing the advertising to the consumer.

One of the features of the meetings held for Avon's sales representatives is a film composite of TV spot commercials in which John Ewald, the well-known president of Avon, talks directly to representatives. It was generally agreed by the audience that any time John wants to quit his job and go into television broadcasting he would have the vote of the audience.

The program of this very successful gathering was arranged by Robert S. Feeley, Avon sales counselor.

Left to right, Robert S. Feeley, Avon sales counselor; Norman C. Chadwick, vice-president, promotion; Max Rogers, art director; Wayne Hicklin, vice-president; and George W. Shine, advertising manager.

Packaging and Selling

Changing Motivation

Motivation research, still in its infancy, according to top flight marketing men, is already coming in for more clashing differences of opinion than anything else in the field of selling.

According to a top executive of the Borden Company, the housewife of today is making many of the food industry's business decisions, as a result of the industry's use of the new science of motivation and market research.

Of course, it can be stated that the housewife has always made these decisions and she never sat around waiting for motivation research. She always did make those decisions, at the point of sale, which either aroused joy or broke the heart of manufacturers of branded packaged products.

This executive cited a number of case histories in which motivation research among mothers had caused them to change in a very specific way the form, the flavor or the character of their product.

We have never had any quarrel with motivation research as a so-called science because it obviously has enormous value in fitting a product to the wants of the market. But we still insist that motivation research can be fraught with peril for the manufacturer. The consumer may like one thing at the moment and change their mind within 24 hours. He or she may not and very often does not know what they want. A lot of other complicated psychological factors may enter into their answer.

Anyway, if the big companies start operating on the basis of motivation research and adapt their product to what they discover the public likes at that particular moment, this, it seems to us, will open up unlimited opportunities for small companies to come up with new and original ideas which may tempt the consumer into new habits and new likes.

Extravagant Advertising

There has been a feeling during this year in the cosmetic industry that a great deal of cosmetic advertising has not contributed to expanding the market or the consumption of cosmetics but has simply been an out and out slugging battle for competitive supremacy by some companies, or for survival by others. During this period, which was ushered in by the remarkable success of a few television programs, we have more or less forgotten any of the discussions that used to rage about the economics of advertising. Now that some cosmetic companies are spending from 40 to 50 per cent of their sales dollar on advertising and then adding to this retail and sometimes wholesale discounts, then a store demonstrator or a P. M., then the cost of travelling demonstrators and travelling salesmen, the time is approaching when the cosmetic industry may take the undesirable position as a leader in the high cost of distribution.

We commented in our last issue on a cosmetic company whose president explained their failure to pay a dividend by the fact that a television program did not work out too well. Before the period in which this dividend was passed that company had made such a spectacular sales increase because of a television program that it was popularly stated in the industry that this was not a cosmetic company but a television program.

According to the financial reports, we have a new contender for the position of profitless prosperity in the cosmetic business through excessive advertising. Lehn & Fink Products Corporation reached a new high in sales for the fiscal year ending June 30 of $23,010,615 as against $21,719,258 the year before.

However, net earnings declined to $200,102 as compared to $1,055,538 the year before.

Edward Plant, President, attributed reduced earnings to extraordinarily heavy advertising in television during the year.

"As part of our long-range plans to expand our sales outlets and reach new markets, we made large increases in our advertising appropriations during the year and most of this investment went into television. Although sales increased, so far the increases have not caught up with advertising expenditures."

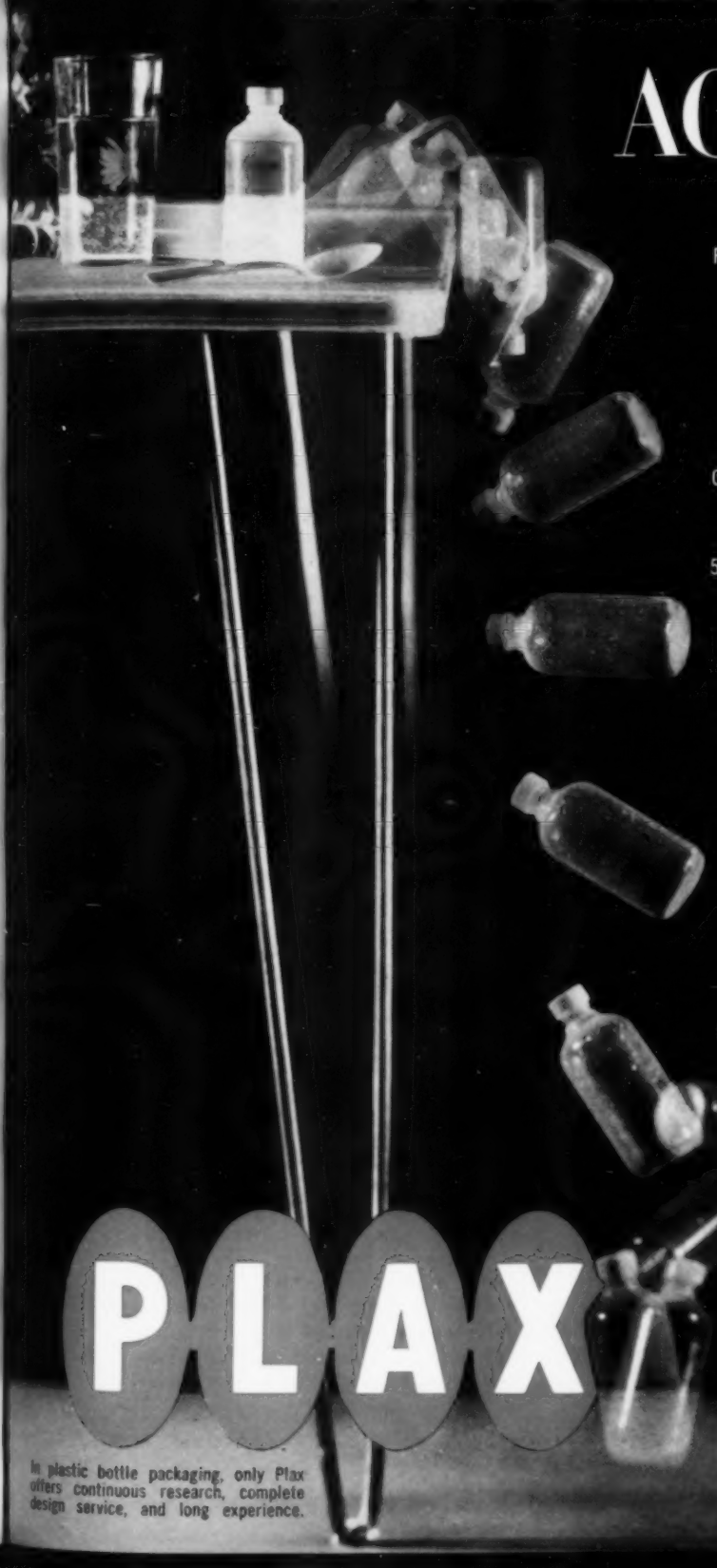
The market for cosmetics has been expanding largely through the development of new products resulting from research. These products have largely been in the hair field. A number of products with which Lehn & Fink are primarily concerned such as face creams, have shown a declining market, others such as lipstick and fragrance have shown a nearly static market and certainly not above a two per cent annual increase. The members of the cosmetic industry who have been expending extravagant sums of money on television do not have any statistical support for any contention that the market for their products can be increased beyond a normal minor percentage, which historically seems to have taken place without this extravagant advertising.

Obsolescence for Toothbrushes

We hear that the Dr. West folks are bringing out an antiseptic toothbrush. This is a toothbrush impregnated with an anti-bactericide. The reason behind this new invention, so rumor has it, is that people are hanging on to their old toothbrush so long that the toothbrush business ain't what it used to be. With this new toothbrush, it is hoped, people will buy a new toothbrush every four months in order to be sure they are getting complete oral protection. A little adhesive tag accompanies each brush so that people will be sure to know when the date of protective antiseptic action has ceased to be.

In this day of do-it-yourself, we can only hope that some associated-sales-minded clerk will not conceive

There's a PLAX Package for products that cannot afford to be in ACCIDENTS



For such products, a Plax package is unbeatable. Besides being unbreakable, it is warm to the touch and non-slip. Its light weight is another advantage and one that can save you hundreds of thousands of dollars in shipping costs.

Choice of colors and shape is unlimited. You also have a wide choice of dispensing methods. More than 50 different fitments enable you to select the one best suited to your product — whether it's spray, drop-by-drop, controlled pouring or direct application.

For convenience packaging, consult Plax.

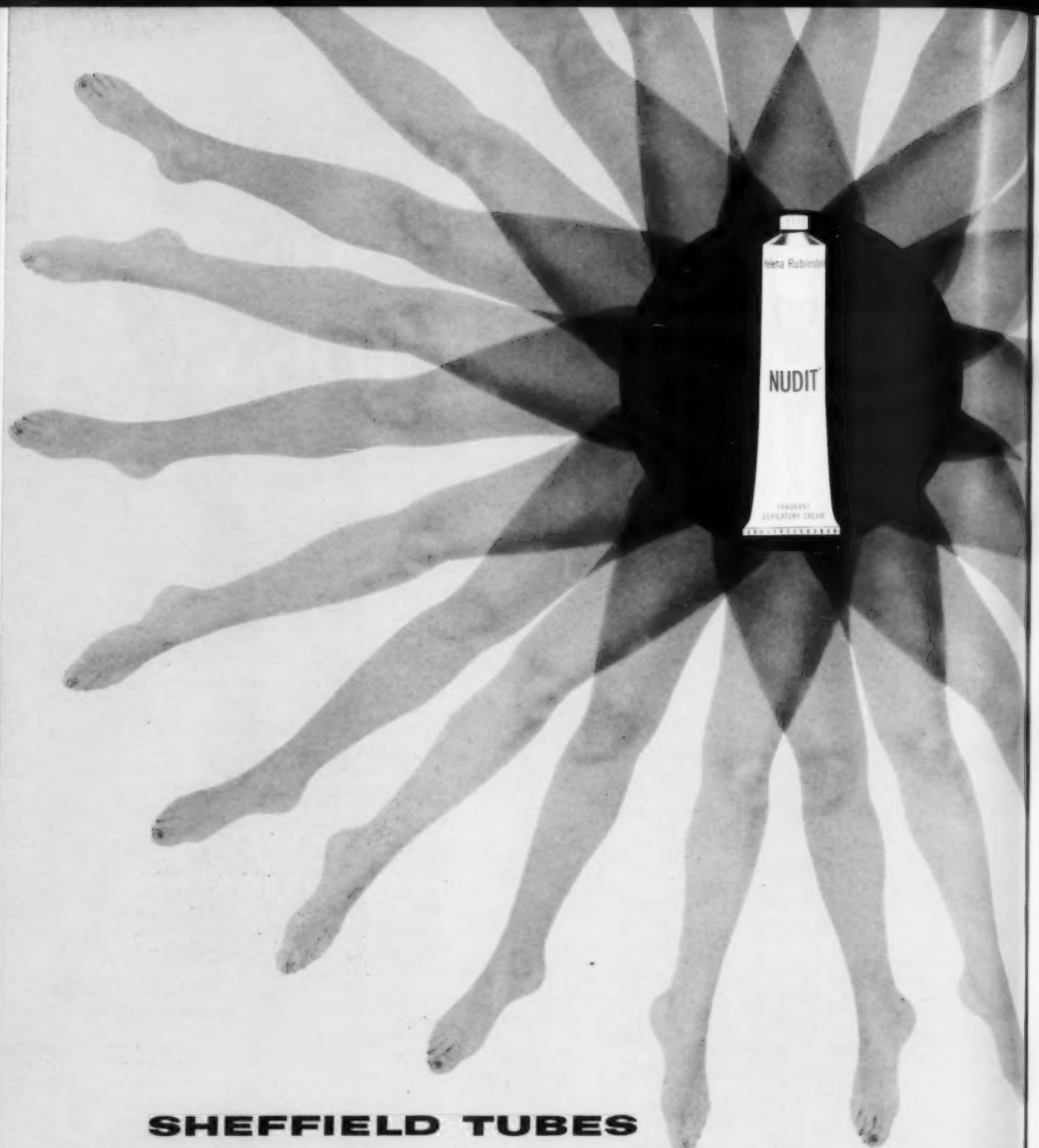
PLAX CORPORATION

P. O. BOX 1019, HARTFORD, CONNECTICUT

IN CANADA: Plax Canada, Ltd., Montreal and Toronto

PLAX

In plastic bottle packaging, only Plax offers continuous research, complete design service, and long experience.



SHEFFIELD TUBES

CONGRATULATES HELENA RUBINSTEIN, FAMOUS BEAUTY AUTHORITY

who has simplified the leg care of lovely women everywhere with her sensational, new cream depilatory... Nudit. Of course she put her revolutionary depilatory in the most modern containers available... Sheffield Tubes. Here's a fragrant product that gives skin a satin finish, packaged in collapsible tubes that are indispensable at home or for travel. Your product will go farther with more people in Sheffield Process collapsible tubes, perfectly engineered for convenience, perfectly designed to attract attention.

THE SHEFFIELD TUBE CORPORATION, **Home Offices: New London, Connecticut / Sales Offices: New York • Chicago • Los Angeles**

the idea of selling a little bottle of some oral antiseptic with each toothbrush whereby the alert toothbrush user can only too easily prolong for themselves the protective action of the toothbrush. The Dr. West people have too good an idea here to be so easily disrupted.

Time

Time Magazine created a subs antial and individual place for itself as a magazine from the day that it defeated and replaced the old revered and dull Literary Digest as the teacher's pet. Nobody would ever deny that Time has a particular field of reader interest, particularly for the educated but casual newspaper reader.

In recent years, Time Magazine has been a leader among a certain group of consumer magazines who have been trying to prove that they were also business magazines. Some clever promotions and a long series of so-called reader research has, to a certain degree, created the illusion that Time was the magazine to use to reach the top business executives of America. This illusion has been readily accepted by certain advertising agencies who would much rather prepare one page of copy and collect one single big commission from Time, than by going through the labor of selecting a dozen or more industrial magazines in the specific industries which cover the market for their client.

Now Time has come a cropper. Their last reader survey "Study of Executive Audiences" has been slapped hard where it hurts hardest by the Advertising Research Foundation.

In openly junking this study of executive audiences by Time Magazine, the Advertising Research Foundation states "That the survey cannot be safely accepted for the guidance of advertising media selection."

This mail order survey of Time, using what we ourselves had thought to be highly slanted and loaded questions, is also reported to be coming in for a series of blasts from rival magazines which state that the 31 cities selected were based on a hit and miss basis and the corporate executives questioned were, to say the least, on a misleading basis as compared to other readers.

Maybee

A leading independent research firm is predicting in the business papers that the sales of drug and toiletry items in food stores will increase by more than 100 million dollars during 1956. This of course, is dependent, says the research firm, on a continuation of the present upward trend in sales volume.

More Credit

As an example of the unlimited possibilities in Vending, take a look at the Vend-A-Check machines now being tested throughout New Orleans.

This is the machine that issues a certified $5.00 check. To get this check you put 50 cents into the machine. Any retailer, service station or any other place who can identify you or will take the risk will give you the $5.00. You then have fifteen days in which to pay the money back to the central office.

In two months of testing with 15,000 checks issued, only two people have failed to pay up.

We had the somewhat hazy idea that we had almost exhausted every possibility of extending credit in this country. Now it looks as if credit is extending into automation.

Frosted Glass

A coating which when applied to clear glass with an aerosol spray container leaves a permanently opaque finish to simulate commercially ground glass. This is a frosting which is reported to reduce the danger of glass breakage which may occur when regular paints are applied to prevent the sun from shining through the glass.

The coating dries quickly, without smearing, and gives a permanent washable finish.

This new coating has just been announced by the Sapolin Paints, Inc. While obviously not prepared for containers it could have some interesting application with small carved runs.

Not so Classy

This is supposed to be a market of labor aristocrats. To listen to anyone of the leading advertising agencies, America no longer has a class market but has now become that rare unique thing never before witnessed in the world—the mass-class market.

For this reason, we do not quite understand what sort of a monkey wrench in our economic wheel Labor Secretary James P Mitchell is throwing when he announces that out of the 67 million work force only nine million are skilled workmen.

A New Drink

We hear that the Dairy Department of the University of Maryland has come up with an artificially colored and flavored milk. Now if they will only remove the butter fat, the cholesterols and the milk protein, maybe they will really come up with a brand-new drink for the ever-eager American Public.

New Booklet

The Glass Container Manufacturers Institute, Inc. at 99 Park Avenue, New York 16, N. Y., have just published a very interesting booklet called "The History of Glass Containers."

The "Winnah"

The companies of the drug and cosmetic industry bow to no one in the numbers of "firsts" received during a year. On the same high level of complacent satisfaction, the members of this industry receive as many awards for distinguished service, packaging, research, promotion, civic service or anything else you may think of as those in any other industry.

For this reason, we did not view with any degree of astonishment or surprise the news that one of the companies in our trade has just been given the

New Perfection DROPPING PARTS

For Attractive Appearance . . .
. . . Perfect Performance

The New Perfection line of dropping parts is designed to meet your exacting demand for modern-looking units that function perfectly. We know that the user's satisfaction with your product may depend upon the reliability of the dropper—And, New Perfection dropping parts present your preparation at its very best.

The New Perfection reputation for excellence is maintained by use of the best quality materials, scrupulous attention to cleanliness and rigid inspection of all parts before delivery.

DROPPER GLASSES

are available in a wide variety of styles and sizes; plain or CALIBRATED in any color to mark specific dosages.

BULBS

are supplied in many styles and colors. Oil-Resisting AMEKINE synthetic rubber is used for oil preparations; natural rubber is supplied for other products.

CAPS

of plastic or metal, can be furnished in a complete range of sizes and colors.

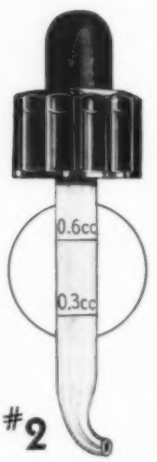
BOTTLES

in an attractive modernistic style in Amber, Blue, Green or Clear glass, are available, complete with dropping parts, in the following sizes: ⅛, ¼, ½, 1 and 2 oz.

DROPPER GLASSES CAN BE

CALIBRATED
IN COLOR

An inexpensive extra that adds great convenience to the use of your preparation. The dosage you desire in the color you specify is accurately and permanently printed on the dropper glass. Trade-marks and firm names can also be imprinted.



We Can Supply Dropping Parts To Fit Your Bottles or Furnish Complete With Our Own Bottles

Write for Samples and Quotations

PENNSYLVANIA GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. Craig Street • Pittsburgh 13, Pa., U. S. A.

"Joshua" award for the most distinguished use of match book advertising by a firm in the drug field during 1955.

Award certificates were also voted by a panel of judges to the Mennen Company, to Hazel Bishop, to Fort Dodge Laboratories and in the retail trade, to Sunray Drug Co.

We are happy to record this honor because in our mind, it illustrates that no matter in what direction you may turn, in any illustrious field of human endeavor, this industry is represented by an alert, progressive company which usually cops the prize.

Our Share

A clinic, sponsored by the Textile Distributors Institute, heard a member say that textile producers face a "frightening situation" in the relative lack of consumer interest in buying apparel. Said he: "Disposable income has been increasing at an average rate of almost 6½ per cent annually in the last eight years." During this period, for every 10 per cent increase in disposable income, consumer expenditures for apparel and accessories have increased only one per cent. "Expenditures for new homes and automobiles on the other hand, have gone up 17 per cent."

There are some signs that the cosmetic industry too, has been losing some ground in its historical share of the disposable part of the consumer's dollar.

Color Comparison

One of the very real problems of this industry, both in the cosmetic and the pharmaceutical industry, but very particularly in the cosmetic branch is color matching. It may be that the procedure used by the Convention of the Paint and Varnish Production Club, in their recent annual meeting in New York, may be of some help. Here's what these paint people have discovered.

It is important in matching colors not to have too much light. This is because a too intense light limits the operator in seeing small differences in light shades. It is important to eliminate any side effects of illumination, therefore the test should be made in a booth closed on three sides.

As a way to avoid eyestrain, the ceiling and the walls of the booth should be in a color neither too bright nor too dark. Experiments show that a neutral gray color of approximately 5.0 of the Munsel Neutral Scale is about right for this purpose.

This booth should be illuminated by four 15-Watt Fluorescent lights, augmented with two 60-Watt frosted incandescent lights. These should be wired so that one or the other can be switched off, because the one set of lights is about right for viewing light shades and both are needed for viewing dark shades.

Colored Aluminum

The white metal will no longer be just white. In announcing that aluminum can now be had in sheet tube and extruded forms in yellow, blue, brown, gold and black metallic finishes, we foresee a wide field of exciting development in the application of aluminum, not only in many household and industry uses, but specifically for packaging in this industry.

Fair Trade

Anyone who heard or who read a report of the debate on fair trade staged at a recent forum of the New York Sales Executives Club, must be impressed with the fact that fair trade is rapidly becoming an ideology. You are either for it or agin it, with no in between. You are also pretty much immune to argument and reason why, when you have taken one side.

In this debate the two who were against fair trade have made a leading name as discounters. These men were Stephen Masters of Masters, Inc., and Frank Packard of Packard Bamberger. Each of these leading discounters ridiculed the charge of the traditional retailer that price cutting hurt anyone. Said Mr. Packard: "Fair trade is based on one of the most erroneous Un-American premises that I can imagine, and that is that selling at a close margin a product that bears an honest trade-mark injures this product in some mysterious occult way."

"I am against fair trade because the basis of the American industrial revolution is the broadest possible distribution of goods at the cheapest possible price. Either we believe in a free enterprise or a free market or we don't."

Mr. Masters then went on to refute the idea that the discount house is able to cut costs because it fails to render adequate service. Mr. Masters described a leading discount operation in the following way:

1. All merchandise is brand-new.
2. Always allows refund or exchange at any time up to 30 days without any questions asked.
3. Furnishes a one year guarantee (on hard goods).
4. Maintains on its own premises a large, dependable repair service.
5. Makes home deliveries.
6. Forbids switch-selling tactics.
7. Applies a time-payment plan.
8. Makes every item, every day reflect worthwhile money savings.

The two proponents who charge that (1) Discounters kill small business and (2) That they put cheapness over quality were Emanuel Katz of Doeskin Products, Inc. and Jack Asthalter of Scheaffer Pen Company. Mr. Asthalter believes that "In so far as the consumer is concerned, we must always keep in mind the fact that a fair traded article to be fair traded, must be in free and open competition. Mr. Katz then went on with the following defense of fair trade: (1) Builds more quality into the products and tells about this quality; (2) Makes buying easier by better packaging design, product display and better co-ordination for advertising and other sales methods. Gives better insight into customer wants and needs to eliminate the type of mind which advocates cheapness in an era of unequalled prosperity.

Hot Coupons

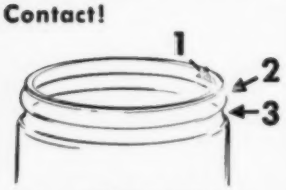
If you want to get into about the hottest argument to be found in any branch of marketing, just voice a pro or con opinion about the use of coupons within the hearing of somebody in the grocery business.

Triple Seal Snap Cap Vials!

The NEW *Line of* GLASS VIALS *with* *Triple Seal Snap Caps*

ANOTHER FINE DEMUTH PACKAGE

Demuth Sealtite "V" Snap Cap and Demuth Vial are Specially Designed to Insure a Perfect Fit and Triple Sealing of Cap and Vial at These Points of Contact!



1 - INSIDE OF LIP
2 - BEAD
3 - NECK

The Triple Seal Snap Cap is a Demuth development designed to give additional sealing performance and engineered to:

1. Provide maximum orifice size.
2. Provide cap fitting flush with body of vial.
3. Permit run with high speed capping equipment.

Sturdy of construction, the Demuth Snap Cap retains its shape under pressure when being fitted on Demuth's specially designed vial. Fits tight and snug, yet is easily removed from vial.

Demuth's new glass vials made of crystal clear glass with the Triple Seal Snap Cap are available in three standard body diameters and in any desired length. Their uniform wall thickness means perfect visibility without distortion. Demuth Glass Vials retain clarity, will not cloud, craze or scratch.

THERE'S NO SUBSTITUTE FOR *Glass*

DEMUTH Pearglass VIALS

DEMUTH GLASS WORKS, Inc.

PARKERSBURG, WEST VIRGINIA

Sales Offices - NEW YORK · CHICAGO · PHILADELPHIA

Here are two recent opinions: "Wow, how they sell merchandise," by George E. Johanneson, President of Advertising Distributors of America, Inc. and "If any manufacturer tells me coupons bring people into my store, I tell him he is a liar," by Patsy D'Agostino, President of several super-markets by that name in New York City.

Some Salesmanship!

Montgomery Ward & Company uses 1400 carloads of paper and spends 20 million dollars annually each year in producing and distributing 75 million catalogs.

Dell Survey

The Nineteenth "Survey of Beauty" of the Dell Modern Group has just been received. We think this is one of the good, comprehensive, magazine market studies in a fairly well defined market for the cosmetic industry.

We like this book especially because of the large amount of diversified information in it as well as its coverage of practically every cosmetic product that can be defined and identified.

A particularly useful feature of this book is the Annual Comparison starting with the year 1939.

There is a page devoted to the media prices of cosmetics by each of the years since 1939. This shows what is to us a rather startling increase in the median or average price the customer is today spending for cosmetics. For instance, in 1939 the media price of lipsticks was 31.2c. Today in 1955, it is 92.9c. Vanishing cream in 1939 was 21.9c and is today 70c. Hand cream in 1939 was 17.4c and is now 69.4c. These figures as we read them do not mean a substantial increase in the price of any one particular size and brand but is rather a fair representation of what everyone in the industry has observed and that is the substantial trading up by the consumer which has been taking place over the last several years. We remember before 1939 when 80 per cent of all of the units in lipstick were sold in the variety stores in the 10c size and when probably 70 per cent or more of the units in face creams were a 10 and 25c size, mostly in variety stores. This evidence of substantial trading up across the board of the cosmetic industry gives very strong evidence as to the problems which the syndicate stores have had to face and the adjustments necessary in their departments.

Another feature of this book that is becoming increasingly important in marketing cosmetics is that for each cosmetic the place of purchase is given.

Other features, in addition to the usual listing of cosmetic brands saleswise by years, are the purchase by age groups, by income groups, by city size and by regions.

Rare Bird, the Consumer

Very often the people in any one industry are apt to believe that the industry problems which caused them so much worry are peculiar to their own industry. The folks in the drug and cosmetic industry, during the last several years have been harassed by what they call an increase in customer disloyalty and by the fickle, unpredictability of the American consumer, ready to drop whatever she is using to buy something new, just because it is new. We quoted elsewhere a statement on this subject from the head of Campbell Soup Company of all things, and now we offer you another quotation from the President of Skyway Luggage Company.

"The American consumer is a restless dynamic and unpredictable individual. He is bound by few if any conventions or customs in his buying; he is uninhibited in terms of expecting new products and services. Our best marketing research experts admit they cannot forecast what American consumers will do, when they will do it, or why they will do it."

The Customer Wants—

We are accustomed to think of our industry as both a dynamic and a volatile industry. The period of useful life of pharmaceuticals has been growing shorter year by year as research found ways of making obsolete within a comparatively few years even the most momentous discoveries. In cosmetics, it is becoming one of the sad facts of life that the consumer is barely able to use up the first piece of a new product which she buys before her interest is switched to a new, different, competitive one.

It should be pretty conclusive that this condition is not limited to our industry but is a basic condition of all business by the fact that even so basic a commodity as soup is right in the middle of this struggle to be always new and different. William B. Murphy, President, Campbell's Soup Company, had this to say before the Investment Bankers Market.

"The modern consumer has grown accustomed to the idea of new and better products every year. He has grown to expect improvement as normal. No matter how new and wonderful something is, this consumer takes it for granted that next year or the year after, the manufacturer will find a way to improve it. Any business that fails to recognize this widespread consumer expectancy of progress will be overlooking one of the vital factors in business today."

Royal Jelly

One of the most striking and intriguing materials ever to enter into use in the cosmetic industry is the so-called royal jelly of the bee. This is the material that nurse bees feed to young queens during the larval stage and to worker bees for the first three days of their life.

This potent hormone-like substance is now being used in cosmetic creams by one or two American manufacturers and by three French cream lines recently introduced into this country.

We do not know just what clinical findings these companies have to substantiate a cosmetic effect from this remarkable jelly. Just recently we read, with a great deal of trepidation, an article on bees in that leading farm journal, the Rural New Yorker and was startled to find the following words, "The young queens, fed with royal jelly for the entire time they are being formed, develop into morons having no power except the ability to lay an enormous number of eggs."

SALES OF AEROSOL PRODUCTS RISE 4000%!

JUST SEE ANY

Contract Fillers

The Contract Fillers listed are equipped to fill aerosols with *Genetron* Propellants and are believed thoroughly qualified. Care has been taken to make the list complete, but there may be others in your area who can serve you equally well.

Aero-Fil, Inc.
10015 West Pacific Ave.
Franklin Park, Ill.

Aeropak, Inc.
3001 West 47th St.
Chicago 32, Ill.

Aerosol Corporation of the South
203 Scott St.
Memphis, Tenn.

Aerosol Methods
Johnson Road
Norristown, Pa.

Aerosol Co., Inc.
525 North 11th St.
Neodesha, Kansas

A-M-R Chemical Co., Inc.
985 East 35th St.
Brooklyn, N. Y.

Armstrong Laboratories
421 La Grange St.
Boston 32, Mass.

Associated Brands Inc.
35 Claver Place
Brooklyn 16, N. Y.

G. Barr & Co.
3601 South Racine Ave.
Chicago, Ill.

Bridgeport Brass Co.
East Main St. & Crescent Ave.
Bridgeport, Conn.

Cardel Enterprises
Bethridge Road—Rexdale
Toronto, Ontario

Chase Products Co.
20th & Gardner Road
Broadview, Ill.

Chemi-Form Corp.
3707 West Harrison St.
Chicago 24, Ill.

Cleveland Aerosol Packaging Corp.
425 Lakeside Ave., N.W.
Cleveland 13, Ohio

Connecticut Chemical Research Corp.
706 Bostwick Ave.
Bridgeport, Conn.

Connecticut Chemicals (Canada) Ltd.
Curity Ave. and Hollinger Road
Toronto, Ontario

Continental Filling Corp.
123 North Hazel St.
Danville, Ill.

Edgerton & Riley, Inc.
Muirkirk, Md.

Eveready Pressurized Products, Inc.
1022 Belt Line St.
Cleveland, Ohio

Fluid Chemicals Co., Inc.
878 Mt. Prospect Ave.
Newark, N. J.

Robert J. Kerr Chemicals, Inc.
9 South Fairview Ave.
Park Ridge, Ill.

LaMaur Products, Inc.
520 Plymouth Bldg.
Minneapolis, Minn.

Lawson Chemical Products Co.
5634 Selmaraine Drive
Culver City, Calif.

Lenk Manufacturing Co.
30 Cummington St.
Boston, Mass.

McGuire & Co.
833 47th Ave.
Oakland, Calif.

National Aerosol Packaging Corp.
330 S. Wells Ave.
Chicago, Ill.

National Spray Can Filling Corp.
1238 East 14th St.
Brooklyn, N. Y.

New Jersey Aerosol Packaging Co.
108 Ashland Ave.
West Orange, N. J.

Pactra Chemical Co., Inc.
1213 N. Highland
Los Angeles 38, Calif.

Par Industries, Inc.
2193 East 14th St.
Los Angeles, Calif.

Plaze, Inc.
9401 Watson Industrial Park
St. Louis, Mo.

Powr-Matic, Inc.
Stroudsburg, Pa.

Powr-Pak, Inc.
643 North Ave.
Bridgeport, Conn.

Products Manufacturing Corp.
135 Stevens Ave.
Little Falls, N. J.

Puritan Distributing Co.
160 Washington St., North
Boston 14, Mass.

Regal Chemical Corp.
115 Dobbin St.
Brooklyn 22, N. Y.

Gene Rose Co., Inc.
1637 South Kilbourne Ave.
Chicago, Ill.

Schaefer Paint Company
334 West Marion St.
Lancaster, Penn.

Sprayon Products Co.
2075 East 65th St.
Cleveland, Ohio

Stalfort Pressure-Pak, Inc.
319 West Pratt St.
Baltimore, Md.

John Struthers & Co., Ltd.
3081 Ontario St., East
Montreal, Quebec

Sun-Lac, Inc.
274 Lafayette St.
Newark, N. J.

Transco Co.
728 Chronicle Bldg.
Houston 2, Texas

Whitmire Research
Laboratories, Inc.
339 So. Vandeventer St.
St. Louis, Mo.

Western Filling Corp.
4151 Bandini Blvd.
Los Angeles, Calif.

Zenith Drug Co.
1 Vesey St.
Newark, N. J.

Zonite Products Corp.
500 Jersey Ave.
New Brunswick, N. J.

It's easy to cash in on the Booming Aerosol Market! . .

CONTRACT FILLER LISTED HERE!

Static markets come alive with the use of aerosol push-button packaging! This has resulted time and again with the new best sellers taking a featured place on counters and shelves of stores all over America. Annual production of aerosol products is approaching 200,000,000 units, an increase of nearly 4000% in 10 years.

Profit from Aerosols Without a Penny's Investment in Plant or Equipment!

The potential profit in aerosols has been proved . . . there's no reason now for delay! If you have a product that can be sprayed, brushed on, dusted or daubed, see any Contract Filler listed about producing it as an aerosol. You will find them skilled in this revolutionary packaging technique, and equipped for economical production of almost any quantity from small test runs to sustained volume. You don't have to invest a cent in special equipment or personnel!

Don't wait while others win the market for aerosols. Start realizing the big profits aerosols offer by consulting your nearest Contract Filler now.

Assure Customer Satisfaction with

genetron®

Aerosol Propellants

A Propellant for Every Aerosol Need!

You can help give your aerosol products outstanding competitive advantages by the use of General Chemical's expanded line of *Genetron* Propellants. Used singly or in combination, they are making possible a continuous increase in the variety of aerosol products, and are permitting the use of new and more attractive types of containers. A *Genetron* Propellant formulated for your product is assurance of lasting consumer satisfaction. The principal *Genetrons* are:

GENETRON 12—Dichlorodifluoromethane
GENETRON 11—Trichloromonofluoromethane
GENETRON 12/11 MIXES
GENETRON 320—Dichlorotetrafluoroethane
GENETRON 320/12 MIXES
GENETRON 101—Monochlorodifluoroethane
GENETRON 320/101 MIXES
GENETRON 226—Trichlorotrifluoroethane
GENETRON 141—Monochlorodifluoromethane
GENETRON 100—Difluoroethane (1-1)
SPECIAL PROPELLANTS

Basic Chemicals For American Industry

Allied Chemical

For further information, send for our illustrated technical manual and market data book . . . "ALL ABOUT AEROSOLS"

Write to

GENETRON DEPARTMENT

GENERAL CHEMICAL DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

NEWS IN PACKAGING...

More About L-P Polyethylene

Eight manufacturers of plastics have now announced their entry into the low pressure polyethylene field. Celanese Corp. of America and Union Carbide & Carbon Corp. have been licensed by Phillips Petroleum Co. The other manufacturers are E. I. du Pont de Nemours & Co., Koppers Co., Monsanto Chemical Co., Hercules Powder Co., Goodrich Co. and the Dow Chemical Co., all of which have either announced their plans, or they have already begun production.

Union Carbide's plans

Union Carbide & Carbon Corp. and Phillips Petroleum Co. have signed an agreement which gives Carbide a license under the Phillips patents involving low-pressure polyethylene, according to George C. Miller, president of the Bakelite Co.

This high-strength, semi-rigid polyethylene may be processed on standard equipment. Although the material is of the same general type as the low-pressure polyethylene obtained by the Ziegler Process, under which Carbide is also licensed, it presently differs from it somewhat in certain properties.

Under this agreement, Carbide has rights to produce polyethylene of the general types presently identified by the Phillips trade-mark, "Marlex."

Polyethylenes produced by the so-called low-pressure Phillips or Ziegler techniques differ markedly from the conventional high-pressure polyethylene in strength, stiffness, distortion point, and vapor transmission. Although these materials when readily available are expected to have some effect on markets now served by high-pressure process polyethylene, Mr. Miller states, the company feels the major effect will be on markets currently served by other materials.

Hercules to Build Plant

Hercules Powder Co plans to construct a plant at Parlin, N. J., for the production of the new-type high-molecular-weight polyethylene. The company has been licensed to use the Ziegler process for the manufacture of this low-pressure polyethylene. Although the new facilities will not be completed until late next year, the company states it will be able to distribute some new-type polyethylene in early 1956.

This new plastic, which Hercules has named "Hyfax," will be obtained under an arrangement with the Farbwerke Hoechst AG in Germany.

The plant, with an annual capacity of about 30 million pounds, will eventually involve expenditures in the neighborhood of $10 million, including new construction, raw materials, and conversion of some of the existing facilities at Hercules' present Parlin plant.

Hoechst, one of the first companies to be licensed by Ziegler, is completing its commercial plant and will be in production in Germany early in 1956.

The process under which Hercules is licensed for production of Hyfax was developed by professor Doctor Karl Ziegler of the Max Planck Institute at Muelheim, Germany. Dr. Ziegler's discovery that ethylene could be polymerized to give a new type of polyethylene with many properties improved over the old type, resulted from his work on new types of catalysts. The Ziegler catalysts are expected to open up a whole new field of catalytic chemistry particularly adaptable to the petroleum industry.

Under its contract with Ziegler, Hercules also has the exclusive right to sell a basic component of the Ziegler catalyst in the United States and Canada.

Glass Container Shipments Hit Record

Domestic shipments of new glass containers by the 43 glass companies, members of the Glass Container Manufacturers Institute. The August glass container shipments climbed to an all-time monthly high in August, amounting to 1.9 billion (1,977,120,000) units. August shipments were up 11.2 per cent over the previous monthly high (1,778,256,000 units in March, 1953) and 28.0 per cent higher than August, 1954, shipments of 1,544,688,000.

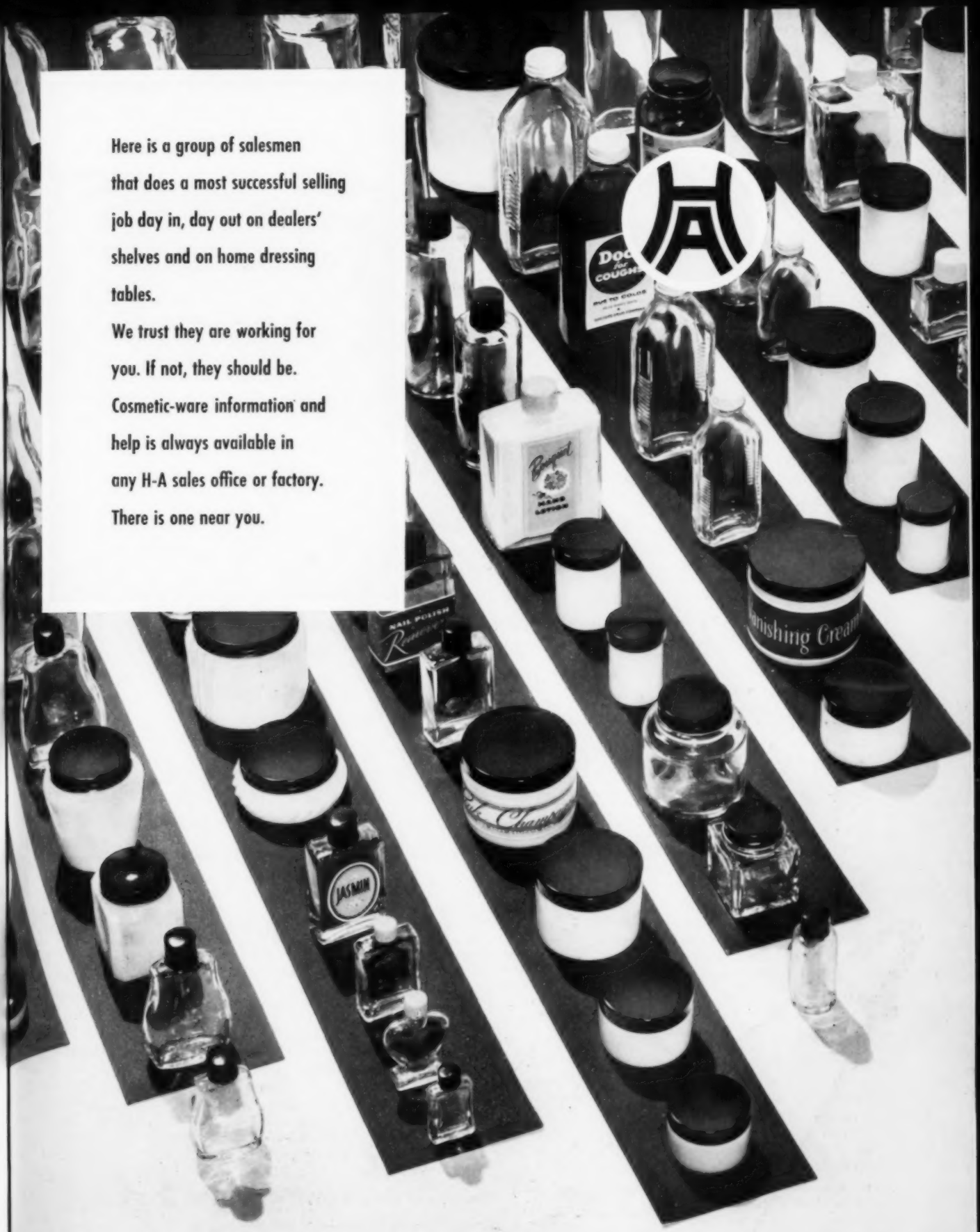
During the first eight months of 1955, shipments totaled 12,370,608,000 units, as compared with 11,512,224,000 during the same period last year. This was an increase of 7.5 per cent.

Award to S&D

An award for excellence in the "Best Direct Mail Advertising of 1955" contest of the Direct Mail Advertising Association has just been made to Sharp & Dohme, Division of Merck & Co. Inc. The presentation of the award was made to John A. Wells, Sharp & Dohme Advertising Director, and an Award of of Participation was given to Andrew B. Schmith, Art Director of Sharp & Dohme.

The award winner has a hard cover album similar to an album for phonograph records, with 12 pockets designed to hold various types of literature about the Corticoid Steroids "Hydrocortone" and "Cortone." Release of the literature

Left to right, John A. Wells, advertising director, Sharp & Dohme; Andrew B. Schmith, art director; and Ruth Huey, copywriter, who originally conceived award-winning entry in 1955 Direct Mail Advertising Ass'n competition. Album and award are also shown.


Here is a group of salesmen
that does a most successful selling
job day in, day out on dealers'
shelves and on home dressing
tables.
We trust they are working for
you. If not, they should be.
Cosmetic-ware information and
help is always available in
any H-A sales office or factory.
There is one near you.
Bouquet
Vanishing Cream
JASMIN

most successful cosmetic salesmen...

HAZEL-ATLAS GLASS COMPANY, WHEELING, W. VA.

Want your carton to fit your market as well as your product?

The shape of your carton has more to do with the shape of your sales curve than you may think.

Fitting your product is only one job a carton does. It also must fit your market. The yardstick we use to make sure your carton not only houses your product securely but helps sell it, too, is Gair Package Analysis*. It finds the answers to questions like these:

Does your product call for a "showcase" carton that *displays* it to shoppers? Do you have a *shipping* problem? Or is *cost* the major factor in your market?

Whatever the answers, it's up to the structural designer to create the shape that helps make your carton *stand out* . . . and *sell out!* To do that he's got to know folding cartons from paperboard right through automatic packaging machinery. At Gair, he does.

* Gair Package Analysis is a service performed by Gair to insure that your carton meets the needs of your market. Phone us today — a Gair packaging expert will call at your convenience to fill in the details.

GAIR
ACM

creative engineering in packaging

SINCE 1864

FOLDING CARTONS • SHIPPING CONTAINERS
PAPERBOARD • KRAFT BAGS AND WRAPPINGS

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK 17, N.Y.

FC.5.5

for each album pocket is made by direct mail over a carefully scheduled period of time.

Sharp & Dohme received the "Best of Industry Award for the Best in Direct Mail" in 1953, and early this year Schmith received a bronze medallion for a booklet displayed by the Philadelphia Printing Week Graphic Arts Exhibit.

PDC Elections

Frank Gianninoto was re-elected president of the Package Designers Council at its recently annual meeting in New York. Gerald Stahl, vice-president; Karl Fink, secretary; and George Reiner, treasurer, were also returned to office for another year.

Mr. Gianninoto pointed out that the PDC had grown in both size and strengh since its establishment three years ago.

Plastics Symposium

The Atlantic Regional Conference, sponsored by the New York section of the Society of Plastics Engineers, is holding a one-day symposium on "Plastics for Packaging" in the Grand Ballroom of the Hotel Statler, New York, on November 16.

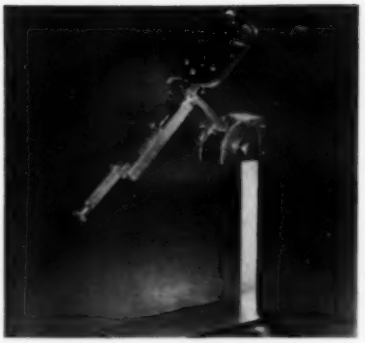
Open to all SPE members, as well as any one else who is interested, the conference will include outstanding speakers from major materials suppliers who will discuss plastic materials, processing techniques and future trends in the packaging field. There will be technical exhibits as well.

Lloyd Stouffer, editor of Modern Packaging, and Egmond Arens, designer, of Egmond Arens Co., will deliver talks at the evening session.

Regular registration fees are $2 for members and $3 for non-members. The fees for luncheon and dinner are $10 and $11, respectively.

New Syringe Filler

Medical Appliance Corp., Boonton, N. J., has developed the "Hypo-Matic" Syringe Filler, a new instrument that enables quick, easy filling and more accurate measurement of hypodermic syringes. The "Hypo-Matic" holds both bottle and syringe securely and the needle can be guided safely and easily into the bottle. This eliminates broken needles or dropping either bottle or syringe. It also does away with the awkwardness and difficulty frequently associated with the filling of syringes. Both hands are left free to insure accuracy. The "Hypo-Matic" is particularly



Hypo-matic Syringe Filler

suitable for mass inoculations, and it is also a time-saver in the office, clinic, hospital, laboratory and dispensary. The manufacturer states that it is a solidly constructed, precision engineered instrument made of highly polished, chrome-plated brass and available as either a desk model or wall mounting type. An inexpensive model for home use, made of chrome-plated brass and plastic, is also being produced which is ideal for diabetics and others. For further information contact Medical Appliance Corp., P. O. Box 334, Boonton, New Jersey.

Economic Mach. Buys Labeling Line

Economic Machinery Co., division of Geo. J. Meyer Manufacturing Co., has acquired the entire line of automatic single, duplex and triplex labeling machines formerly manufactured by Liquid Carbonic Corp. of Chicago.

Tooling and design, and licenses to sell under certain patents and trademarks, are included in the sale in addition to inventory.

Recent New Products

American Cyanamid Co., fine chemicals division. A new, improved folic acid, three per cent above the U.S.P. XV requirement.

Ayerst Laboratories. *Thiosulfil Solution*, for ophthalmic and nasal instillation.

Bristol Laboratories. Announces that the Food and Drug Administration has authorized over-the-counter sales of *Bristamin* and certain Bristamin-containing products.

Burroughs Wellcome & Co. (U.S.A.) Inc. New dosage form of *Tabloid brand Digoxin* 0.5 mg.

Dorothy Gray. *Special Dry-Skin Lotion.* A new formula including lanolin and Allantoin, and presented in a new square-faced bottle.

G. F. Harvey Co. *Nartate*, a non-narcotic analgesic and anti-pyretic in-aqueous solution. *Toloxidyne*, for quick relief of colds and allergies. *Harvamine*, an antihistaminic with fewer side reactions.

Irwin, Neisler & Co. *Tanphetamin Prolocolloid Complex.* Provides for gradual and even release of amphetamine as it passes along gastrointestinal tract.

Lederle Laboratories. *Achromycin Nasal Suspension* in a convenient, plastic squeeze bottle for easy inhalation, and *Achromycin Liquid Pediatric* Drops, a ready-to-use, cherry-flavored preparation for infants and children where palatability is a factor.

Malmstrom Chemical Corp. *Lantrol.* A new, refined lanolin oil which retains all beneficial properties of regular lanolin but eliminates many disadvantages.

Miller Laboratories, 103 Park Ave., New York 17. *Anatoid.* An anesthetic, decongestant suppository with a unique method of application.

Chas. Pfizer & Co. A specially designed liquid *Vitamin A Palmitate* for aqueous dispersion-type products; and three Prescription specialties: Institutional Packs of *Tyzine Nasal Solution, Toclase Expectorant Compound* and *Antibiotic Candettes.* A micronized form of hydrocortisone acetate.

Pitman-Moore Co. *Novahistine with APC.* Offers a new approach to management of respiratory conditions, pain and fever in acute congestive colds and sinusitis.

J. B. Roerig & Co. *Stimavite*, a new appetite stimulant that looks and tastes like candy; Bonadoxin, for the control of nausea and vomiting of pregnancy; and *Stimavite Tastilabs*, an appetite stimulant for both children and adults.

W. O. Washburn & Sons. *Balm Argenta Hand Lotion.* Packaged in matchbook-type folder with enough cream for one application in each of eight silver-foil pillows. Twelve folders are in each package, giving 96 individual applications in all.

Available plain, debossed, silk-screened or decorated with jewels. Goldcote caps shown come plain or jeweled. Other caps in various shapes and colors obtainable.

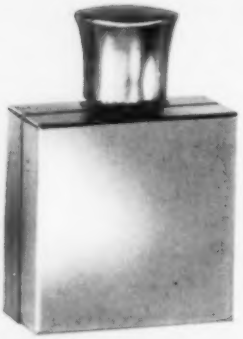
RICHFORD SPILLPROOF METAL ENCASED PERFUME FLACONS

Shaped for Sales!

Highly-Polished Brass, 1 dram Spillproofs in seven shapes — perfect for the purse — easy on the pocketbook. Write now for samples and prices.

No. 2201 Flat Oval

No. 2301 Bermuda



No. 2001 Square

No. 2251 Tall Oval

No. 2151 Tall Round

RICHFORD
CORPORATION
404 FOURTH AVENUE, NEW YORK 16, N. Y.

No. 2101 Watchcase

No. 2401 Nassau

ACTUAL SIZES SHOWN

Patent THOUGHTS AND TRENDS

*by Thomas Cifelli, Jr.**

PATENT ATTORNEY

When this article appears the 1955 Christmas shopping season will be getting underway, in all probability. The present time therefore seems like an appropriate occasion to dwell on a patent item dealing with simulated snow, as this product is coming more and more into wide-spread use, particularly around Christmas. Matters affecting the fair sex, such as hair-waving lotions, are always in season and accordingly are appropriate for discussion at this time of the year also.

Simulated Snow Coating

At first blush, the connection between simulated snow and drugs or cosmetics is liable to be lost. However, just as many other industrial products present problems dealing with the smell factor, so does simulated snow. This follows from the fact that a considerable amount of simulated snow is used in the decoration of Christmas trees, and such snow, while it adds to the decorative appearance of such trees, nevertheless covers up much of the surface of the trees of necessity, and in so doing materially reduces the desirable pine, etc. odors which one associates with Christmas trees. Perfumes of the piney type consequently are incorporated in simulated snow, and with very favorable results.

From the foregoing it follows that the reader may well be interested in patents dealing with simulated snow. No attempt has been made to collect all patents which have a bearing on this question. Instead, a patent of very recent vintage has been selected for detailed attention, because it appears to cover very broadly the best present commercial forms of simulated snow. Reference is made to U.S. patent 2716637, issued on August 30, 1955, to Albert L. Bunting and assigned to Continental Filling Corporation, Danville, Illinois.

Prior to the Bunting invention, simulated snow coatings for the decoration of Christmas trees was of course well-known. The snow was made from compositions which consisted of a plastic resin dissolved in volatile solvent and enclosed in a pressure container. As the solution was sprayed from the container small globules of resin formed. The formulation was such that the globules retained sufficient solvent to give a tackiness to the simulated snow so that it would adhere to the surface upon which it was sprayed. According to Bunting, however, the subsequent escape of this retained solvent produced an undesirable blistering effect which destroyed the desired appearance of the decorative coating of simulated snow. Another well-recognized defect of simulated snow products was the difficulty encountered in attempting to remove the snow from painted surfaces, floors, rugs, household furnishings and mirror, etc. Anyone who has attempted to remove such snows after they have served their purpose will likely offer no dissent to the foregoing statement.

Bunting claims to have a neat solution which enables him to produce a simulated snow which does not blister after it has been formed, which is relatively inexpensive, and which is readily and easily removable with available household cleaners from painted surfaces and other places where such snow is used or to which it adheres.

Essentially, Bunting's solution involves the use of fatty acids, preferably stearic or palmitic acids in amounts from about 10 to about 100 per cent of the resin content.

Bunting's theory is that as a resin solution is sprayed from the container and the small globular spheroids of plastic are formed by the escaping solvent these spheroids retain a certain amount of solvent so that they have enough tackiness to adhere to the surface upon which they are sprayed. It is believed that this retained solvent must subsequently evaporate rapidly in order to give the desired texture and appearance to the formed coating of simulated snow and to prevent stringing or cobwebbing between the spheroids which would destroy the flake-like appearance of the snow. In order to keep the plastic surfaces open to allow such rapid evaporation of solvent the free fatty acids are used.

Any resin soluble in the selected solvent is said to be suitable for use in Bunting's compositions. He mentions specifically polystyrene, polymethyl acrylate, butyl-methacrylate, and isobutyl-methacrylate, which are thermoplastic synthetic resins, and natural resins such as copals. Bunting suggests that the plastic content be kept between about five to about 12 per cent of the composition and preferably in the range of about seven and one-half to about 10 per cent.

Bunting's solvents are the solvent-propellants normally used in pressure containers. Examples include the "Freons" and "Genetrons," the well-known trade-marks for halogenated aliphatic hydrocarbons containing one or more fluorine atoms. The proportion of propellant used is generally from about 83 per cent to about 94 per cent by weight of the solution.

The following two examples are taken from the patent:

EXAMPLE I

Stearic acid.....Approx. 1.0 per cent by weight
Acryloid B-72.....Approx. 7.5 per cent by weight
Propellant gas.....Approx. 91.5 per cent by weight

EXAMPLE II

Stearic acid....Approx. 2.5 per cent to 5.0 per cent by weight
Acryloid B-72..Approx. 5.0 per cent to 7.5 per cent by weight
Propellant gas.Approx. 90. 0 per cent by weight

The acryloid B-72 specified in the foregoing examples is a product by Rohm and Haas and is a co-polymer of iso-propyl methacrylate and normal-propyl methacrylate.

An idea of the broad protection obtained can be gleaned from claim 1 of the patent which is reproduced below:

*Richards and Cifelli
Newark, New Jersey

PRIVATE LABEL AEROSOLS

. . . if you have an aerosol product
. . . if you have an aerosol project
. . . if you have an aerosol problem

LET
G. BARR & COMPANY
HELP YOU . . . Tens of millions of successfully selling aerosols are custom formulated and/or filled by G. Barr & Company for many of the nation's leading concerns. These are testimonials of leadership . . . earned through outstanding aerosol research laboratories . . . creative product development . . . meticulous quality control . . . effective production economies. And . . . G. Barr & Company markets no products of its own.

Whether you need help in developing a new aerosol idea or in filling a current product . . . whether you need 1,000 units or a million per week, G. Barr & Company's three aerosol filling plants—New York, Chicago, Los Angeles, can take care of your requirements now. Three key locations to assure you of freight savings and on-schedule delivery.

- *Aerosol filling by refrigeration or pressure.*
- *Aerosol packaging in metal, plastic, and glass containers.*
- *Aerosols as sprays, foams, powders.*
- *Aerosol cosmetics, insecticides, pharmaceuticals, waxes, cleaners, polishes, household products . . . your new product idea.*

Address inquiries to: 3601 S. Racine Avenue, Chicago 9, Illinois

G. BARR & COMPANY

Plants in: New York • Chicago • Los Angeles

A self-spraying pressurized artificial snow-forming composition consisting essentially of a solution, said solution comprising a minor proportion not exceeding about 12 per cent of a thermoplastic material selected from the group consisting of polymerized methyl acrylate, alkyl methacrylate polymers, polystyrene, and ethyl cellulose, and a minor proportion not exceeding about 12 per cent of a free fatty acid selected from the group consisting of stearic acid and palmitic acid, said material and said acid being dissolved in a major proportion of a solvent-propellant consisting essentially of a pressure-liquefiable, normally gaseous, halogen-substituted aliphatic hydrocarbon containing at least one fluorine atom.

Hair Waving Lotions

Activity in the hair-waving field continues apace. This is shown not only by the number of patents being granted in this area but also by the fact that organizations of substantial standing are active. In this connection the Gillette patents have been mentioned recently and we now find Procter & Gamble receiving three patents in this field. The patent numbers are U.S. 2719813, 2719814 and 2719815.

All three patents are directed to attempts to minimize the disadvantages which result when mercaptans are permitted to stay in contact with the hair too long. The problem is a difficult one since the speed of the reaction between a mercaptan and the keratin of the hair is dependent on so many different factors, such as shaft diameter, porosity, chemical composition and condition of the hair at the time of treatment. For this reason it is not possible to generalize as to the correct duration of contact. A given contact time may be optimum for one individual but may prove detrimental to another individual.

The common key to all three patents is the finding that when certain mercaptans are used in conjunction with their corresponding disulfides in certain proportions the undesirable excessive reaction which causes damage to the keratin when it is overexposed to mercaptans is retarded but the desirable reducing reaction which is necessary to accomplish modification of the keratinous material is not affected to any great extent.

The first claims of each of the patents are given below, as they not only give an idea of the amount of protection but also summarize the actual disclosures.

Claim 1 of U.S. 2719813 follows:

1. A hair waving lotion for effectively waving hair without imparting undesirable damage thereto even in prolonged periods of contact, consisting essentially of a mixture in aqueous solution of water-soluble non-tertiary mercaptan of the general formula,

HS—D—Q

and water-soluble, non-tertiary, organic disulfide of the general formula,

Q′D′—S—S—D″—Q″

where Q,Q′ and Q″ each represents a radical selected from the group consisting of hydroxy (—OH) and lower alkoxy (—OR where R is an unsubstituted alkyl group of from one to three carbon atoms in length and D,D′ and D″ each represents an alkylene radical containing at least two carbon atoms and composed exclusively of carbon and hydrogen atoms except for the presence of from zero to four functional groups each of which is chosen from the class consisting of mercapto (—SH), hydroxy (—OH) and lower alkoxy (—OR where R is an unsubstituted alkyl group of from one to three carbon atoms in length), the amount of said mercaptan being from about one to about 15 per cent by weight of the solution, the numerical ratio of organic disulfide groups to mercapto groups in solution being from about 0.10:1.0 to about 1.5:1.0, the pH of the solution being from about 8.5 to about 9.5, and the solution being substantially free both sulfite and organic thiosulfate.

Claim 1 of U.S. 2719814 follows:

1. A hair waving lotion for effectively waving hair without imparting undesirable damage thereto even in prolonged periods of contact, consisting essentially of a mixture in aqueous solution of water-soluble non-tertiary mercaptan of the general formula,

HS—G—Z

and water-soluble, non-tertiary, organic disulfide of the general formula,

Z′—G′—S—S—G″—Z″

where Z, Z′ and Z″ each represents a radical selected from the group consisting of carboxyl (—CO_2H) and sulfonic (—SO_3H), and G,G′ and G″ each represents an alkylene radical containing at least two carbon atoms and composed exclusively of carbon and hydrogen atoms except for the presence of from zero to two functional groups each of which is chosen from the class consisting of mercapto (—SH), carboxyl (—CO_2H) and sulfonic (—SO_3H) acid groups, the amount of said mercaptan being from about one to about 15 per cent by weight of the solution, the numerical ratio of organic disulfide, groups to mercapto groups in solution being from about 0.10:1.0 to about 1.5:1.0, the pH of the solution being from about 8.5 to about 9.5, and the solution being substantially free from both sulfite and organic thiosulfate.

Claim 1 of U.S. 2719815 follows:

1. A hair waving lotion for effectively waving hair without imparting undesirable damage thereto, comprising essentially an aqueous solution of a mixture of thioglycolic acid and dithiodiglycolic acid substantially free from sulfite and organic thiosulfate, the concentration of thioglycolic acid in solution being from about two per cent to about 10 per cent, the molar ratio of dithiodiglycolic acid to thioglycolic acid being from about 0.15:1 to about 1.5:1, and the alkalinity of the solution being from about pH 8.5 to about pH 10, said concentration and alkalinity, being adjusted within said ranges so as to obtain in a given time of exposure a permanent change in the configuration of the hair without undesirable damage thereto.

These patents are especially recommended to the workers in this field. In addition they are recommended for study by all in the cosmetics field as they are believed to be outstanding examples of well-prepared patents. This statement is made entirely from the point of view of the kind of information which should be in a patent and has no reference whatever to any evaluation of the actual invention disclosed in the patents. A study of the patents will show that they do not confine themselves to vague and indefinite generalized statements but actually disclose a sincere attempt to obtain experimental data by scientifically-based tests. Specifically, tests involving measurements of the curl diameter, curl length and damage are detailed and employed in order to evaluate the hair-waving lotions.

(*Continued on page 707*)

control's the thing...

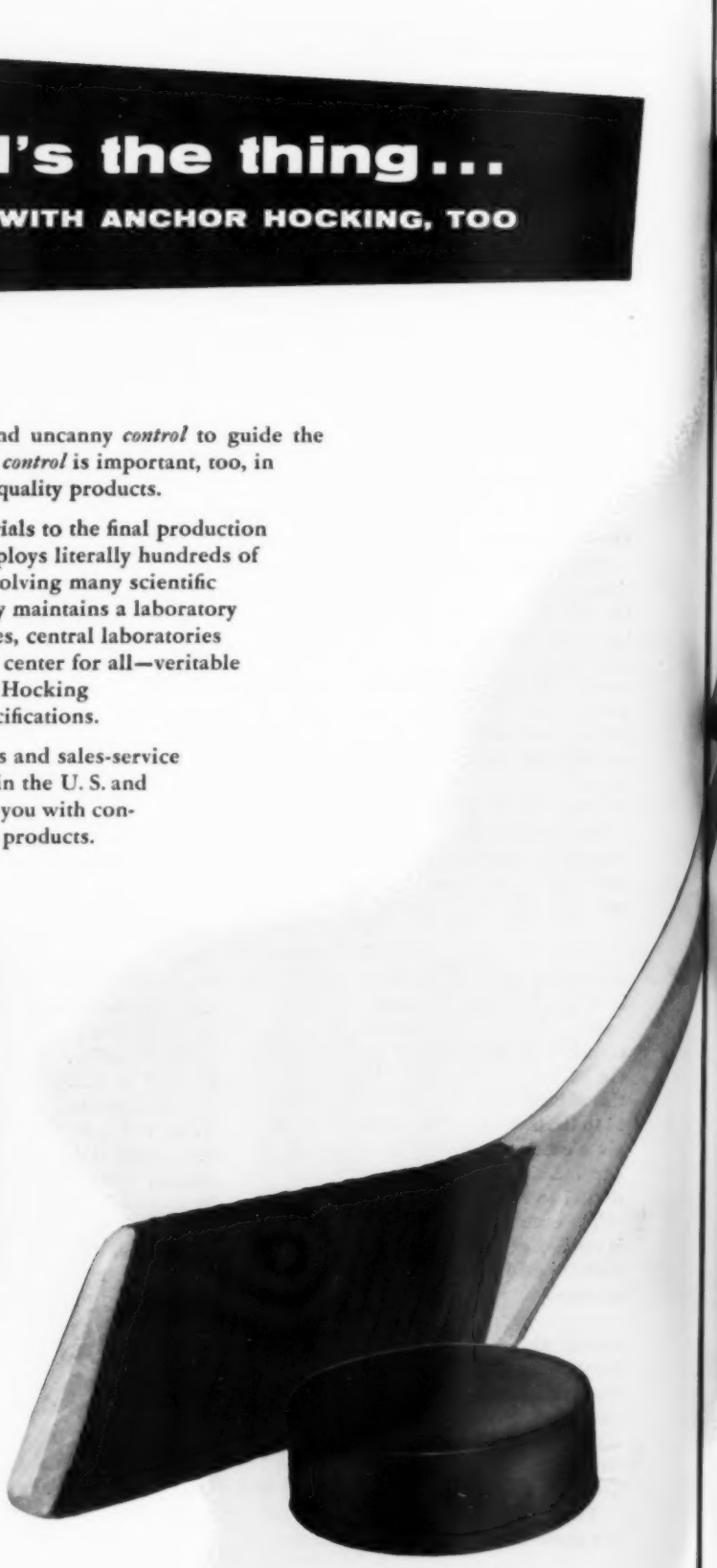
WITH ANCHOR HOCKING, TOO

Hockey requires flashing speed and uncanny *control* to guide the puck through a rugged defense. And *control* is important, too, in the manufacture of Anchor Hocking quality products.

From the selection of all raw materials to the final production line inspection, Anchor Hocking employs literally hundreds of exacting *controls,* tests and checks involving many scientific testing devices. Although each factory maintains a laboratory of its own for quality control purposes, central laboratories at Lancaster, Ohio, serve as a control center for all—veritable watchdogs that make certain Anchor Hocking products comply with their rigid specifications.

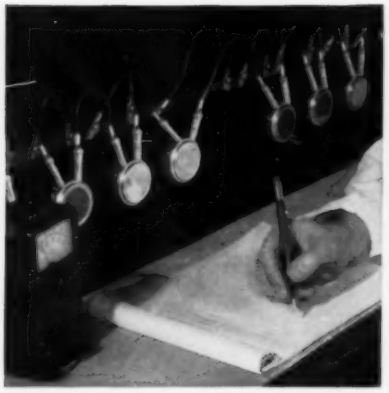
Eleven strategically located factories and sales-service representatives in 25 principal cities in the U. S. and Canada await the opportunity to serve you with controlled high quality Anchor Hocking products.

The 1¾ fluid ounce capacity Anchor Amerseal® Box is ideal for salves, pastes, polishes, etc. Its lug closure seals or removes with a simple quarter-turn.



50th Anniversary

The packer is a trained inspector, too. She sees that gaskets are correctly inserted and cap edges properly turned before packing.



The adhesive and coverage qualities of closure coatings are evaluated and controlled through electric cell tests in both research and control laboratories.

Anchor Molded Caps are regularly checked for strength with a torque tester to make certain they comply with rigid specifications.

ANCHOR HOCKING

GLASS CORPORATION

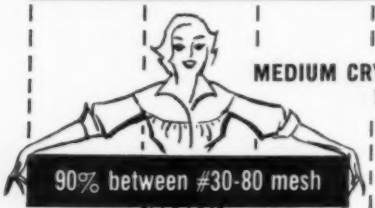
GENERAL OFFICES — LANCASTER, OHIO

Anchorglass Containers, Anchor Metal and Plastic Closures, Anchor Sealing Machines, Cartons and Package Engineering Service... for Packers, Manufacturers, Bottlers of Foods, Drugs, Household Chemicals, Cosmetics, Toiletries, Beverages, Beers, Ales, Wines and Liquors.

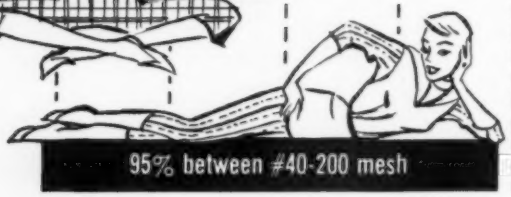
MERCK ASCORBIC—controlled particle sizes meet every need

MESH RANGE

30 — 325 — LESS THAN 325



MEDIUM CRYSTALS Uniform, well-defined crystals, with minimum 90% between 30 and 80 mesh screens. Ideal for tablet granulations.

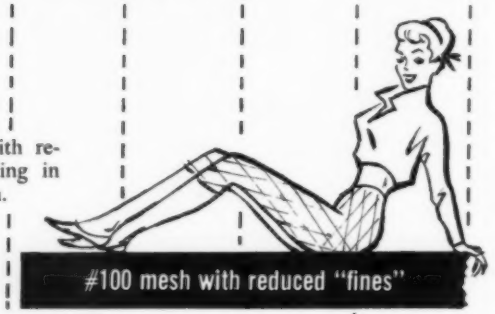


FINE CRYSTALS FOR AMPS

Quickly soluble, white crystals of high purity for producing solutions of top-notch clarity. Also used for special tablet granulations.

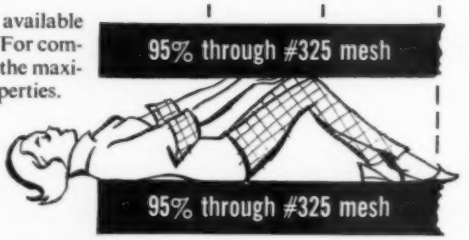
CUSTOM POWDER

A white 100-mesh powder, with reduced "fines" for easy blending in mixtures for capsule production.



SUPERFINE POWDER

The finest particle size available (95% through 325 mesh). For compounding which requires the maximum in impalpable properties.



SODIUM ASCORBATE Uniform fine powder with precise specifications on *p*H (7.35 to 7.65). This means savings in process adjustment.

LOOK TO MERCK FOR:

1. UNIFORMITY—Every lot is controlled by rigid specifications for both *upper* and *lower* limits to meet your specific production needs.

2. FRESHNESS—Inventory controls ensure fresh goods.

3. TECHNICAL SERVICE—Merck literature keeps you abreast of the latest developments; technical assistance helps you in formulating and marketing your vitamin products.

Ask your Merck representative why MERCK ASCORBATES *are the choice of formulators everywhere.*

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY

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MERCK

FIRST IN VITAMINS

NEWS...

Merck Exec. Promotions

John G. Bill has been elected president of the Sharp & Dohme division and Dr. William H. McLean, president of the chemical division, Merck & Co. Dr. Antoine T. Knoppers has become vice-president and general manager of the Merck-Sharp & Dohme international division.

Mr Bill, formerly vice-president and general manager of the Sharp & Dohme division, has been with Sharp & Dohme since 1925. He fills the vacancy created by the recent resignation of William L. Dempsey who continues as a Merck director and consultant.

Dr. McLean succeeds Henry W. Johnstone who continues as senior vice-president and director.

Dr. Knoppers succeeds John T. Connor who was recently elected president of Merck.

WILLIAM H. McLEAN

Searle Expansion

G. D. Searle & Co. last month started construction on two projects designed to enlarge its scientific research and administrative facilities: A basement and two-story addition to the general office and laboratory on Searle Parkway, and the completion of additional research laboratory units to provide working space for anticipated additions to the company's medical research staff. The former expansion will provide space for an enlarged foreign trade department, the sales and advertising staffs, and other general office departments.

Nelson Promoted by Norwich

James H. Nelson, assistant credit manager, has been appointed director of the credit division of the Norwich Pharmacal Co., according to John K. Hill, vice-president and treasurer.

He replaces Harry A. Cunningham who died recently.

JOHN G. BILL

Burr, Pres., Hazel Bishop

Donald D. Burr has been elected president of Hazel Bishop Inc., according to Raymond Spector, chairman of the board. For the past three years he has been vice-president in charge of sales.

Brick, Exec. V.P., Onyx Oil

Leon P. Brick has been elected executive vice-president and acting president of Onyx Oil & Chemical Co. He has been with the company 28 years.

Guenther to Get Medal Award

Dr. Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., will receive the Society of Cosmetic Chemists' annual Medal Award for 1955 on December 15, at the Hotel Commodore, New York City. He has been outstanding in the field of perfumery for the past 30 years, and his writings on fragrances and related subjects have been widely published.

DR. ERNEST GUENTHER

Hunt in Noxzema Post

William D. Hunt, formerly with Personal Products Corp., has been appointed director of new product development of the Noxzema Chemical Co., according to George T Brian, Jr., vice president. He will be responsible for coordinating all the departments of the company in order to make sure of the proper release of new products and improve the brand position of Noxzema's existing items in the line.

Horsey Interviewed on TV

R. E. Horsey, vice-president in charge of sales, Givaudan-Delawanna, Inc., was interviewed by Conrad Nagel on the television program, Mr. Executive, on Sunday, October 16. Also featured was a short film of the Givaudan factory at Delawanna, N. J.

Sets up ALFA Essential Oil Co.

Dr. Alexander Farkas has established ALFA Essential Oil Co. which will import spice oils and flower oils from East European producers. The company will also represent independent Californian citrus fruit growers and West Coast peppermint oil producers.

Dr. Farkas states that Industrial Perfumery Laboratories will continue in consulting work and product development as a subsidiary of ALFA Essential Oil Co.

Cassullo Returns from Europe

John L. Cassullo, president of Dodge & Olcott, last month returned from a three-week trip to Europe, where he attended the International Food Fair in Cologne, Germany, October 1 to 9. With him at the Fair was D&O flavor chemist Willem Lasthuysen.

Revlon Buys J&J Plant in N. J.

Revlon Products Corp. has purchased Johnson & Johnson's manufacturing plant in Edison Township, N. J., fronting on State Highway Route 27, according to Charles Revson, president. Located on a 91-acre site, the new addition has 266,000 square feet of plant facilities and cost $3.5 million to build in 1949. Purchase price of the plant was not disclosed.

Revlon will take possession next Summer and plans to employ between 1,000 and 1,500 persons when the plant starts production.

Welch, Holme Moves N.Y. Office

Welch, Holme & Clark Co. has moved its offices to 1 Hudson St., New York 13. The telephone number is BArclay 7-4465.

Memo to:

bulk users of

AMMONIUM SULFATE
Purified, Granular

3 excellent reasons to buy Baker

❶ exceptionally pure
❷ controlled particle size
❸ fast-dissolving

SPECIFICATIONS

Assay $(NH_4)_2SO_4$	99.5	% Min.
Insoluble Matter	0.010	% Max.
Residue after Ignition	0.010	% Max.
Arsenic (as)	0.00003	% Max.
Heavy Metals (as Pb)	0.001	% Max.
Iron (Fe)	0.001	% Max.
Neutrality	Passes Test*	
pH of 5% Solution at 25°C	5.0-6.0	
Particle Size (Mesh)	At least 98% thru U.S. No. 20 Sieve	
	At least 90% thru U.S. No. 35 Sieve	
	At least 75% on U.S. No. 200 Sieve	

*A.C.S. neutrality test for reagent ammonium sulfate.

If Ammonium Sulfate is essential to your process, these three reasons can mean time and money to you.

Baker Ammonium Sulfate, Purified, Granular, is a product of synthesis.

It is produced from pure ammonia and sulfuric acid. This, plus Baker's precise process controls, yields an ammonium sulfate free of the usual impurities of by-product material. Its uniform granular particle size is fine enough to dissolve fast and provide trouble-free processing.

These valuable properties help minimize your processing and product variation, help decrease your production time, help *cut* your costs by the elimination of costly purification steps.

USES: Baker Ammonium Sulfate, Purified, Granular, finds particular application in industries requiring a material exceptionally low in critical impurities such as arsenic, heavy metals and iron.

Pharmaceutical —antibiotic manufacture; preparation of biological serums; precipitant in purifying and separating proteins; in blood fractionation.

Food Processing—in dry yeast production and in leavening agents.

Fermentation—as an activating agent, nutrient, and for pH control.

Cosmetics—in formulations for home permanent hair waving, in shampoos.

PACKAGING: Baker Ammonium Sulfate, Purified, Granular, is packaged in fibre drums with net weights of 25, 100 and 300 pounds, and in bags of 100 pounds net weight.

The ability to produce fine and industrial chemicals *of outstanding purity for process and ingredient use* has made Baker a leading supplier for half a century.

Remember...it pays to buy Baker!

J. T. Baker Chemical Co.
Executive Offices & Plant, Phillipsburg, N.J.

Baker CHEMICAL

Baker Chemicals
REAGENT • FINE • INDUSTRIAL

EDWARD P. GUNTHER

FRANK L. STAMBERG

JAMES F. SHUMAKER

Appointed by McKelvy

Edward P. Gunther has been appointed new products manager, Alfred D. McKelvy Co. Having formerly been assistant to Patrick H. Gorman, president, he has been succeeded in this position by Frank L. Stamberg. Mr. Stamberg had previously been methods supervisor at Vick Chemical Co.

Winthrop-Stearns Changes Name

Winthrop-Stearns Inc. has changed its corporate name to Winthrop Laboratories, Inc., according to Dr. Theodore G. Klumpp, president.

The business was established in 1919 under the name of Winthrop Chemical Co., Inc., and was consolidated in 1935 with H. A. Metz Laboratories. Alba Pharmaceutical Co. was merged with Winthrop in 1942 and, in 1947, Winthrop-Stearns Inc. was organized following the acquisition of Frederick Stearns & Co.

More Office Space for NYQ

New York Quinine & Chemical Works has added to its office space at 50 Church St., New York, owing to an increase in its feed, food and beverage departments. The telephone number is now COrtlandt 7-2141.

Pfizer Outing at Steeplechase

More than 7,500 employees and guests of Chas. Pfizer & Co. met at Coney Island's Steeplechase Park on September 24 in what was the largest company outing in the New York area. This was the ninth consecut ve year that Pfizer has made all the facilities of Steeplechase available to its personnel and guests without charge.

John E. McKeen, Pfizer president, awarded bicycles, wrist-watches, appliances and other door prizes to 21 winning ticket-holders.

CIBS Nominations

David J. Warner, Fleuroma, Inc., was nominated for president of the Cosmetic Industry Buyers and Suppliers (CIBS) at a meeting of the nominating committee on October 20. Additional men named were George A. Kaempkes, Pacquin's, as first vice-president; William Jaeger, Park & Tilford, 2nd vice-president; Jack P. Jordan, Crown Cork Spec. Co., corresponding secretary; J. William Voit, George Luebers & Co., recording secretary; and James E. Beyer, Lehn & Fink Products Corp., treasurer.

Ben Perry, Perry Bros., and Edgar R. Ellis, Charabot & Co., were nominated for the board of directors.

Voting will take place at the December meeting of the organization.

Kircher Transferred by Kolmar

Charles R. Kircher has been transferred to the Milwaukee plant of Kolmar Laboratories where he is director of lipstick research. For the past 10 years he has been in charge of control and lipstick development at Port Jervis.

Heads Phila. Fritzsche Branch

James Shumaker has been appointed manager of the Philadelphia branch of Fritzsche Brothers, replacing Warren R. Godfrey who was recently transferred to the New York headquarters to head perfume sales.

Mr. Shumaker had formerly managed Fritzsche's Cleveland office. This will now be closed, and most of its accounts transferred to the Cincinnati branch. He will be assisted in the Philadelphia post by Robert Hugues who will continue to cover the accounts he has handled during his two years of service with the company.

New Pfizer Plant in England

Chas. Pfizer & Co. opened a new antibiotics plant at Sandwich, England, on September 30, for the production of broad-spectrum antibiotics, including Terramycin. Participating in the official ceremonies were Lord Brabazon of Tara, First Baron of Sandwich; Lady Fleming, wife of the late Sir AlexanderFleming, discoverer of penicillin; and John J. Powers, Jr., senior vice-president of Pfizer.

Chas. Pfizer & Co. employees at Coney Island's Steeplechase Park, where more than 7500 employees and guests took part in the largest company outing in the New York area. This was the 9th consecutive year for this event.

The bottles in our new 439 line are thoroughly practical as well as attractive . . . ideally suited for use both at home and traveling. They can be supplied plain or with fired-on ceramic labels. Available from stock in 1/2, 1, 2, 4 and 8 ounce sizes.
439
cologne for men
439
deodorant for men
CONTS. 4 FL. OZS.
439
after shave lotion
CONTS. 4 FL. OZS.
CARR-LOWREY GLASS CO.
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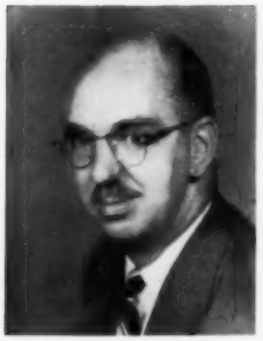
LLOYD C. BENDER, JR.



HERBERT A. BERRY

ELLIS JOHNSON

Armour Exec. Appointments

Lloyd C. Bender, Jr., national field supervisor for the Armour Laboratories, has become sales manager, succeeding Herbert A. Berry who has been named manager of professional and trade relations, according to E. L. Patch, general manager.

Retires, Winthrop-Stearns

Dr. A. E. Sherndal has retired as vice-president and plant manager of Winthrop-Stearns. He has been a chemist for 48 years, during the last 38 of which he has been associated with Winthrop-Stearns and its parent firm, Sterling Drug Inc. He has been at the Rensselaer plant, Winthrop's principal manufacturing center for pharmaceuticals, for the past 25 years.

He was given a testimonial dinner and reception on September 29 at the Sheraton-Ten Eyck Hotel in Rensselaer, N. Y., which was attended by his associates from the Rensselaer plant and by colleagues from Albany, Troy and surrounding areas.

Earlier in September Dr. Sherndal had been honored at a dinner in New York City given by officers of Sterling Drug and its subsidiaries and divisions.

Emery Sales Conference

Emery Industries recently held a four-day conference, during which the company's salesmen received technical information on new products, new uses for old products, and ways to increase customer utilization of all Emery items. J. J. Emery, president and A. W. Schubert, executive vice - president, presented future expansion plans during the session.

The conference was concluded with a tour of the company's new production facilities and modern laboratories which house research, chemical engineering and experimental development activities.

Shepherd Resigns, Conn. Chemical

H. R. Shepherd, vice-president and one of the founders of Connecticut Chemical Research Corp., and its wholly owned subsidiaries, including Bostwick Laboratories, has resigned as an officer and director of the companies. He will announce his future plans shortly and declares that he will continue actively in the aerosol industry.

A. O. Samuels, president of Connecticut Chemical, is assuming direct supervision of the contract packaging division formerly supervised by Mr. Shepherd. Mr. Samuels has for the past several years devoted himself to the physical expansion of the Bridgeport plant, as well as the establishment of operations in England and Canada.

D&O 157th Anniversary

Dodge & Olcott last month celebrated its 157th anniversary, having been founded in 1798.

Johnson Heads Imco Chic. Office

Ellis Johnson, formerly with Hazel-Atlas Glass Co. for 19 years, was recently appointed head of the new Chicago sales office of Imco Container Corp. He is well known in the Chicago container field and is an active member of the Chicago Drug & Chemical Association, and is currently serving as president of the Chicago Perfumery, Soap & Extract Association.

Imco's new Chicago offices, located in the Palmolive Building, brings their total number of domestic sales offices to six. Others are in Kansas City, New York, Memphis, Miami and Los Angeles.

Endo Managers Meet

The officers and divisional managers of Endo Products Inc. held their annual three-day meeting at the Hotel New Yorker, New York, from September 7 to 9. They exchanged ideals and discussed promotional problems.

Attending Emery Industries' recent sales conference, left to right: (Seated) R. T. Hull, J. R. York, W. T. Meinert, W. C. Sowers, H. D. Armitage, A. R. McDermott, R. J. Roberts, J. E. Quinty, W. J. Siemens, and J. D. Farr. (Middle Row) A. C. Fusaro, P. M. Bogner, A. Moore, K. K. Boyd, J. P. Clancy, J. W. Ritz, J. A. Funk, R. F. Brown, O. W. B'Hymer, and J. P. Kramer. (Top Row) T. L. Reiling, E. W. Sack, R. A. Behrmann, C. T. Burgess, W. A. Colby, L. F. Church, R. D. Aylesworth, L. J. Hadobas, W. J. Major, N. A. Ruston, D. R. Eagleson, and V. W. Colby.

DOW PROPYLENE GLYCOL, U. S. P.

ONE SOLVENT SERVING MANY PHARMACEUTICALS

. . . improving preparations for internal consumption, topical application or injection

The formulation of pharmaceuticals demands a dependable solvent. It must be safe, medically acceptable and a good carrier. Propylene glycol, U. S. P., fills these exacting specifications for many approved pharmaceuticals today—may easily do the same for your products.

In some formulations propylene glycol, U. S. P., also provides important preservative action—others benefit from its emollient, humectant or lubricant properties. Truly versatile in its solvent properties, propylene glycol is effective with many organic chemicals used in the field of chemotherapy—indicating its value in injectables, antiseptics, salves, elixirs and ointments.

Standard of dependability in both quality and supply is Dow propylene glycol, U. S. P. Aiding in product improvement for cosmetics as well as pharmaceuticals, its use has brought economy in many cases. For your sample and information on properties, write to THE DOW CHEMICAL COMPANY, Midland, Michigan, Dept. OC 811G-3.

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WILLIAM A. KISSEL

Kissel Transferred by Ungerer

William A. Kissel, formerly sales representative for upper New York State and Eastern Canada, has been assigned to the company's St. Louis office. He has taken charge of that territory under the supervision of J. L. Slais, Chicago district sales manager.

Mr. Kissel's former New York and Canadian areas are now being covered by Warren E. Kell through the Ungerer Boston office.

Named to HIF Posts

Dr. J. Mark Hiebert, president of the Sterling Drug Co., has been elected vice-president and a member of the executive committee of the Health Information Foundation. John E. McKeen, president of Charles Pfizer & Co., has been named a member of the Foundation's operating and executive committees.

Nack with Merrell

Herbert P. Nack has joined the Wm. S. Merrell Co. as assistant director of marketing, according to F. T. Jacobs, marketing vice-president. Among other duties, he will direct the company's hospital sales.

Gair to Build New Plant

Robert Gair Co will start building a new 92,500-square-foot shipping container plant early in 1956 in Cleveland to house its Ohio Corrugated Box division, according to William T. May, Jr., vice-president in charge of container operations. It is expected to be ready by November of next year.

The new plant site was acquired by Gair two years ago. Gair's Cleveland operation began in 1936 when the company bought the carton and container business of the Peerless Paper Box Manufacturing Co.

DR. JACK B. NAGLER

Nagler with Northam Warren

Dr. Jack B. Nagler has been appointed director of research, Northam Warren Corp., according to Northam Warren, president.

Merck 25-Yr. Club Meets

The Merck Quarter Century Club, New York, Rahway and Teterboro Chapter, held its 17th annual dinner meeting at the Elizabeth Carteret Hotel, Elizabeth, N. J., on October 20. Total membership of the club is 387 employees who have been with Merck & Co. for 25 years or more.

Maurice L. Rushmore was elected president, succeeding George E. Mensching, while George W. Muller became vice-president, and Walter L. Wilson, Sr., was re-elected secretary-treasurer.

Principal speakers were the club's honorary president, George W. Merck, chairman of the board of directors, Merck & Co., and Henry W. Johnstone, president of the chemical division.

Bennett Promoted by Schering

Richard J. Bennett, with Schering Corp.'s legal staff since 1947, has been promoted to the newly created post of assistant general counsel, according to Irving H. Jurow, secretary and general counsel. He has also been appointed assistant secretary.

WILLIAM C. MALTON, JR.

In Shulton Executive Post

William C. Malton, Jr., has been appointed advertising manager for the export and fine chemical divisions of Shulton, Inc., according to George L. Schultz. He had formerly been advertising manager for Inter - American Orange Crush Co.

Mexican Subsidiary for Upjohn

The Upjohn Company has formed a wholly owned Mexican subsidiary called Upjohn de Mexico S.A. de C.V. and is expected to begin operations by December 1. Its home office is in Kalamazoo, Mich., according to Dr. E. G. Upjohn, president.

Officers of the subsidiary are Robert S. Jordan, president; Henry B. Roberts, vice-president; and Robert M. Boudeman, secretary-treasurer. Lewis R. Long is general manager of the firm which will be located at Bahia de San Hipolito No. 51a Colonia Anahuac, Mexico 17, D.F.

Walsh in Pfizer Post

Francis A. Walsh, previously on the headquarters staff of J. B. Roerig & Co., division of Chas. Pfizer & Co., has been named a pharmaceutical marketing analyst of the market research department of Pfizer, according to J. L. deCillis, director of market research.

Architect's drawing of Robert Gair Co.'s proposed 92,500 square-foot shipping container plant in Cleveland which will contain its Ohio corrugated box division. Construction will begin early next year.

ALDO S. PERO

Pero Joins Fluid Chem.

Aldo S. Pero has been appointed vice-president in charge of sales, Fluid Chemical Co., according to Edmund D. Bennett, president. He will head and coordinate all Fluid activities in combination packaging and high-speed automatic filling of aerosols.

The sales department has been completely reorganized and now operates in closer conjunction with its laboratories in order to provide a more extensive and personalized type of service.

Award to Kessler

Vincent A. Burgher, sales vice-president of Ciba Pharmaceutical Products Inc., recently presented a certificate of special merit for medical television pioneering to Dr. Henry H. Kessler, medical director of the Kessler Institute for Rehabilitation. The presentation took place after the September 26th telecast of the third program in Ciba's "Medical Horizons" series from the West Orange, N. J., medical center.

During the telecast, Dr. Kessler conducted ABC-TV newscaster Don Goddard through the therapeutic departments of the Institute while rehabilitation specialists demonstrated how patients who have lost the use of their arms and legs are helped to lead constructive, normal and happy lives.

Mach. & Equipment to Move

The Machinery & Equipment Corp., 533 West Broadway, New York, will move to a new location in Newark, N. J. about February 1, 1956, at an address to be announced later. The company's present quarters, as well as other buildings, have been condemned to make way for the Washington Square Southeast Housing Project.

The firm will liquidate as much of its stock as possible at an auction sale at the New York address on December 1.

MM&R Honored in Europe

During their recent visit to Europe, Percy C. Magnus, president, and Dr. Henri F. Logcher, export Manager, Magnus, Mabee & Reynard, Inc., were honored by executives of Cornehls & Bosse, of Hamburg, Germany, at a dinner at the Cosmopolitan Club on September 10.

After the dinner, Herbert Cornehls, president of Cornehls & Bosse, presented Mr. Magnus with a nine-inch diamond-cut crystal ash tray, with a solid silver band on which was engraved: To Messrs. Magnus, Mabee & Reynard, Inc., in commemoration of their Diamond Jubilee, 1955, presented by Cornehls & Bosse, Hamburg.

Diamond-cut crystal ash tray with solid silver band which was presented to Percy C. Magnus by Herbert Cornehls, president of Cornehls & Bosse, during Mr. Magnus' recent trip to Europe. He was accompanied by Dr. Henri F. Logcher, export manager.

Revlon Promotions

Raymond Stetzer has been appointed vice-president of research and development, Revlon Products Corp., and I. Gerard Juliber, vice-president of personnel and labor relations, according to Charles Revson, president. Mr. Stetzer has been with the company as chief chemist since 1943, while Mr. Juliber has been director of personnel since 1950.

Food Machinery Expansion

Food Machinery and Chemical Corp. is building a central research laboratory, employing 150 people, in the Princeton, N. J. area, according to Ernest Hatt, executive vice-president of the chemical divisions. The new laboratories, which will be of the most modern design and will contain extensive library and auxiliary facilities, are scheduled for completion by July, 1956. They will concentrate primarily on long-range chemical research on behalf of FMC Chemical divisions as a whole.

The FMC Chemical divisions are Becco Chemical, Fairfield Chemical, Niagara Chemical.

Wilson Expands

The Wilson Laboratories division of Wilson & Co. has expanded its facilities for producing sterile injectable solutions with a new two-story laboratory addition to the building at 42nd and Western Ave. The new building contains an enlarged microbiological assay laboratory designed for vitamin and amino acid assays.

Research in isolation of active hormones, and drugs that require work with solvents, is carried on in another isolated room equipped with devices for protection against fire and other hazards.

Arnow Receives Award

L. Earle Arnow, vice-president and director of research of Sharp & Dohme, division of Merck & Co., received the University of Minnesota Outstanding Achievement Award at the 128th national meeting of the American Chemical Society at the University. Presentation of the award was made by University President J. L. Morrill at a dinner of chemistry and chemical engineering alumni. Dr. Arnow, who received both his Ph.D. and M.D. degrees from Minnesota, is a former member of the University's medical faculty.

He joined Sharp & Dohme in 1942 as director of biochemical research, was appointed director of research in 1944, and a vice-president in 1953.

Promoted by Armstrong Cork

Paul W. Triplett has been appointed manager of the Detroit office of Armstrong Cork Company's glass and closure division, according to Roger H. Hetzel, general sales manager. He had formerly been a member of the sales staff of the Atlanta district office of Armstrong since 1950. He has been succeeded in this position by James R. Foley.

PAUL W. TRIPLETT

SEE HOW STATIC CHARGE DROPS!

Each hair specimen was charged by contact with a revolving disc on a rotating modulator. The voltage generated in each case was measured by a high-gain oscilloscope.

Laboratory Evidence Shows . . .

TRITON X-400 Halves Static Electricity in Hair

The problem of static electricity in the hair can be solved by using TRITON X-400 as the base for cream hair rinses.

This fact has now been established by comparative tests conducted in the Rohm & Haas laboratories. The voltage on untreated hair was found to be 400 volts per square inch of rubbed surface. By contrast, potential dropped all the way to 200 volts per square inch of rubbed surface when the specimen was treated with TRITON X-400. With this 50% lower charge, it is calculated that hair becomes 4 times more manageable.

There are many other advantages in using TRITON X-400. Combing is easier, and hair stays in place. TRITON X-400 also makes hair substantially softer and more lustrous. What's more, it imparts these fine lubricating characteristics without being greasy.

Based upon a cationic quaternary ammonium compound and a higher alcohol, TRITON X-400 is a heavy paste that's easy to formulate. Perfuming, coloring, or acidifying agents can be incorporated in the final mix.

Try TRITON X-400 in your cream hair rinse formulations now. See your Rohm & Haas representative or write direct for test samples.

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Choose your odors from an ORBIS series. You'll find the right scent at the right price for the right profit.

Write on your letterhead for manufacturers' samples. Send today for the ORBIS catalogue of good products that give *your* products more profits.

SERIES NO. 300 ORBIS ODORS

Bouquet CH	Gardenia	Millefleurs
Bouquet TB	Heliotrope	Muguet
Bouquet Kashmiri	Honeysuckle	Narcisse
Carnation	Jasmin	New Mown Hay
Chypre	Jockey Club	Rose
Cologne	Lavender	Sweet Pea
Divinia	Lilac	Violet
Florida		Wistaria

Always at these low ORBIS prices:

25 and 50 lb. cans	$3.00 per lb.
5 lb. bottles	3.15 per lb.
Trial Pounds	3.25 per lb.

SERIES NO. 600 ORBIS ODORS

Bouquet CH	Divinia	Millefleurs
Bouquet de Oriente	Florida	Muguet
Bouquet Kashmiri	Gardenia	Narcisse
Bouquet Parisienne	Heliotrope	Neroli
Bouquet TB	Honeysuckle	New Mown Hay
Chypre	Jasmin	Oriental
Cologne	Jockey Club	Rose
Corylopsis	Lavender	Sweet Pea
Crechene	Lilac	Violet
Cuir de Russie	Magnolia	Wistaria

Always at these low ORBIS prices:

25 and 50 lb. cans	$6.00 per lb.
5 lb. bottles	6.15 per lb.
Trial Pounds	6.25 per lb.

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ORBIS
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601 W. 26th STREET
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ORBIS has all the essentials

A.Ph.A. Elections

The following officers have been elected by the American Pharmaceutical Association and will be installed at the annual convention in Detroit during the week of April 8, 1956: John A. MacCartney, president-elect; Ronald V. Robertson, first vice-president-elect; and John J. Dugan, second vice-president-elect.

Members-elect of the Council for three-year terms are George F. Archambault; F. Royce Franzoni; and Robert L. Swain, editor, *Drug Topics*.

The present officers of the Association, who will continue through the Detroit convention, are, John B. Heinz, president; Troy C. Daniels, first vice-president; and George C. Roberts, second vice-president.

WILLIAM R. KINER

Appointed by Armstrong Cork

William R. Kiner has been appointed manager of drug and cosmetic sales in the New York district by the glass and closure division of Armstrong Cork Co., according to Roger H. Hetzel, general sales manager of that division. Having had 29 years of experience with Armstrong, he has been working in the New York area since 1946.

Regional Mgr. of Pfizer Labs.

Robert A Bittner, formerly district manager in Atlanta, has been appointed southeastern regional manager, Pfizer Laboratories, according to George Guess, sales manager. He will supervise sales activities in ten southern states and the District of Columbia. His headquarters will continue to be in Atlanta.

Mr. Bittner has been succeeded by William J. Welling, formerly with Pfizer's sales training department in New York. Fletcher Spann, formerly a special hospital representative in the Baltimore area, has taken over Pfizer Laboratories sales in the Birmingham, Ala., district.

BRUCE B. CLYMAN

Heads Bristol Patent Dept.

Bruce B. Clyman has joined Bristol Laboratories as head of its patent department, according to Dr. P. I. Bowman, executive vice-president. Until recently he has been practicing patent and trademark law in his own law office in New York City.

Van Ameringen Annual Outing

Van Ameringen-Haebler, Inc. held its annual outing on September 12, with 304 employees spending the entire day and evening at McGuire's Grove in Middletown, N. J. Personnel from the New York office and the company's plants at Elizabeth and Union Beach, N. J., enjoyed sports, games and dancing.

Charles P. Walker, executive vice-president, introduced 41 new employees, while A. L. van Ameringen, president, delivered a welcoming address.

Pfister with Central Pharmacal

C. Leonard Pfister has been appointed manager of advertising and sales promotion of the Central Pharmacal Co., according to James L. Rogers, president. He had formerly served as sales and promotion executive with E. R. Squibb & Sons.

C. LEONARD PFISTER

Carroll, V-P., Winthrop

Dr. Richard H. Carroll has been elected a vice-president of Winthrop-Stearns Inc. and appointed manager of the firm's principal plant in Rensselaer, N. Y., according to Dr. Theodore G. Klumpp, president. Dr. Carroll, assistant plant manager since 1944, succeeds Dr. A. E. Sherndal who has retired, under the company's pension plan.

Schaafsma Promoted by Colgate

Dr. Bernard R. Schaafsma has been promoted to assistant director of research, according to Dr. Thomas H. Vaughn, vice-president of the research and development department, Colgate-Palmolive Co.

J. O. PEDERSEN

Pedersen Appointed by Gair

J. O. Pedersen has been appointed sales manager of the Chicago ACM division of Robert Gair Co., according to C. A. Colbert, western sales manager of the Folding Carton division.

Ward with Sterling Drug

John C. Ward has been appointed director of industrial relations of Sterling Drug Inc., according to J. Mark Hiebert, president. He will be in charge of the industrial relations program of the company's divisions and subsidiaries in the United States and Canada and will conduct contract negotiations and act in a consultative capacity to personnel managers of the company's plants in North America.

He was most recently personnel director of American News Co.

Now Known as the Pfeiffer Co.

The S. Pfeiffer Mfg. Co., St. Louis, has changed its corporate name to the Pfeiffer Co.

The National Formulary now contains monographs on several forms of vitamin E. For purposes of labeling, N. F. states that 1 mg. of d-Alpha Tocopheryl Acetate shall be considered equivalent to 1.36 International Units of Vitamin E.

Quotations or technical data on d-Alpha Tocopheryl Acetate N. F., d-Alpha Tocopheryl Acetate Concentrate N. F., Mixed Tocopherols Concentrate N. F., and Crystalline *d*-α-Tocopheryl Acid Succinate will be supplied by ***Distillation Products Industries***, Rochester 3, N. Y. Sales offices: New York, Chicago, and Memphis • W. M. Gillies and Company, Los Angeles, Portland, and San Francisco • Charles Albert Smith Limited, Montreal and Toronto.

leaders in research and production of vitamins A and E

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Also . . . distilled monoglycerides
. . . some 3500 Eastman Organic Chemicals for science and industry

Distillation Products Industries *is a division of* **Eastman Kodak Company**

Wick on Foreign Trip

W. J. Wick, executive vice-president of Kolmar Laboratories, flew to Paris on October 1 in order to visit the French plant. Before returning on about November 1, he also visited Bombay, India, where Kolmar is exploring the possibility of a new plant.

He visited Leslie L. Hall, managing director of Kolmar of Australia in Sydney, to discuss a modern plant for which land has already been purchased. He reviewed the plans of the building and the physical layout of the plant.

Kuhlmann Appointed by Lilly

Conway E. Kuhlmann, Jr., Eli Lilly & Co. representative in St. Louis, has been appointed wholesaler associate in the customer promotion services department at the home office in Indianapolis. He succeeds Karl F. McKay who has returned to the sales force as a representative in Dayton.

Appointed by McKesson Labs.

John M. Morson has been named to the newly created position of assistant to Wilbur E. Dewell, vice-president in charge of the McKesson Laboratories, manufacturing division of McKesson & Robbins. He was formerly assistant to H. C. Nolen, executive vice-president in charge of Drug merchandising.

Fuchs, Director of Emulsol

Dr. Charles F. Fuchs, vice-president and technical director of Emulsol Chemical Corp., has also been elected a member of its board of directors, according to Robert I. Wishnick, president of Witco Chemical Co., the parent firm.

With Jeunesse Cosmetics

W. Z. Pearsoll has been appointed general sales manager of Jeunesse Cosmetics, Inc., Dallas, according to Mrs. Gladys Slade, president. He was formerly divisional manager of Frances Denney and Lentheric for the southern United States.

Appointed by Bauer

H. Harrison Greer has been appointed director of marketing of the newly formed domestic pharmaceutical division, Philipp Bauer Co., according to Kenneth B. Bauer, president.

Irving S. Margulies has been promoted to general sales manager of the same division.

JOSEPH L. deCILLIS

DeCillis Promoted by Pfizer

Joseph L. deCillis has been appointed director of market research, Chas. Pfizer & Co. Prior to this appointment he was manager of the new product development department.

Longpre Promoted by Squibb

Arthur J. Longpre has been appointed assistant to the director of advertising and marketing, E. R. Squibb & Sons division, Olin Mathieson Chemical Corp. He had formerly been manager of the North Pacific sales region for Squibb.

Connor Promoted by S&D

Edward J. Connor has been appointed assistant advertising director of Sharp & Dohme, according to John A Wells, advertising director. He was formerly chief copywriter.

Enes with Warner-Chilcott

William Enes has been appointed manager of market research for Warner-Chilcott Laboratories, according to Edmund R. Beckwith, Jr., vice-president in charge of the ethical drug division, Warner-Lambert Pharmaceutical Co. He had formerly been with Barrington Associates, management Consultants.

WILLIAM ENES

Liddane with Bradley Cont.

Carl R. Liddane has been appointed a sales engineer of Bradley Container Corp., according to Henry E. Griffith, vice-president, and will service customers in the New York area. He was formerly an account executive with the Ivers-Lee Co.

Straayer in New Schering Post

George C. Straayer, director of trade relations and sales training for Schering Corp., has been appointed to the new position of director of public relations, according to Francis C. Brown, president.

Promoted by Bristol-Myers

Gene D. Wilken has been appointed sales manager of the Western division of Bristol-Myers Products division, according to Lloyd Bernegger, executive vice-president. His headquarters will be at the company office in Los Angeles.

He succeeds Bruce Mansfield who resigned September 30 to enter business for himself.

Ladd with Foster D. Snell

William A. Ladd, pioneer in electron microscopy, has joined Foster D. Snell, Inc., according to Cyril S. Kimball, executive vice-president.

Gavin with Food Research

John J. Gavin has been appointed chief microbiologist of Food Research Laboratories. He had formerly been head of the Biological Control Unit of Smith, Kline & French Laboratories.

Herman Seydel

Herman Seydel, president of Seydel Chemical Co. and the Cloroben Corp., died at the Jersey City Medical Center on October 13. Born in Brussels, Belgium, he studied in Germany and came to the United States in 1896 as a dyestuff chemist. He later devoted himself chiefly to the development of nontoxic and preventive medicines.

He is survived by two sons and one grandson.

Herman G Weicker

Herman G. Weicker, former secretary and treasurer of E. R. Squibb & Sons, died October 14 in Montclair, N. J., at the age of eighty. Leaving Squibb in 1920, Mr. Weicker for many years was vice-president of Dodge & Olcott, New York. His last position was with S. B. Penick & Co., New York.

Distinctive oval Sterane tablets are produced on a Stokes tablet machine at Chas. Pfizer & Co., Inc. Tooling for these tablets was made by Stokes on a fast production schedule to meet the product's introduction date.

Pfizer Sterane* promises new hope to arthritics

New drug marketed in distinctive oval tablets produced on Stokes machines

Sterane, the powerful new anti-arthritic and anti-inflammatory steroid recently announced by Chas. Pfizer & Co., Inc., of Brooklyn, N.Y., is said to be three to five times more potent than cortisone. Another important advantage to the new drug is its relative freedom from side effects found in previous corticoids used in the treatment of rheumatoid diseases.

Pfizer markets this new pharmaceutical in novel oval tablets which are embossed with the Pfizer trademark. Special punches and dies were developed by Stokes, working in conjunction with Pfizer production personnel. The oval shape has a practical purpose as well, since scored tablets in this shape are more easily broken by arthritic patients when taking small doses.

*Trademark of Chas. Pfizer & Co., Inc.

Stokes pharmaceutical equipment is used to slug Sterane, granulate it and compact the drug into its final oval shape. This equipment is also used in the production of other pharmaceutical products sold under the well-known Pfizer label, including Bonamine*, a motion-sickness drug, Tetracyn*, a broad-spectrum antibiotic, and many other tabletted products.

From punches and dies to complete plant layout and equipment, Stokes' experience can help solve your pharmaceutical production problems. Write for your free copy of Catalog 601, describing the complete line of Stokes Pharmaceutical Equipment.

F. J. STOKES MACHINE COMPANY, PHILADELPHIA 20, PA.

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STOKES

Management Forum

by Francis Chilson

INDUSTRIAL CONSULTANT

Maternal Influence

Some years ago I made some comments in this department about the influence of wives in business. About a year later Fortune did a series of articles on the same theme. This time I am going to make some observations on mamma's influence on executive attitude. (Fortune please copy).

Much sentimental rubbish is written about mothers and it seems a sacrilege to say that mothers can be anything but perfect. Most of them are of course but many are not. Psychiatrists say that in many instances homosexuality in male adults is traceable to over-protectiveness on the part of their mothers. But that's a subject we will not delve into. I think perhaps the worst mothers are among the moderately wealthy women who have only one son, whom they pamper excessively, and about whom they believe nothing could ever be wrong. Mothers who have several children are less likely to spoil any one of them, particularly when the exchequer is rather thin.

Recently I was associated with a brilliant guy. He was general manager and had done an outstanding job of reconstructing his firm. His salary was in the high five figures. But just when he should have been able to go on to much higher things the dead hand of his mother intervened and he got fired. He got fired because the people who owned the business wouldn't play marbles his way.

I had sensed that such an outcome was inevitable. From the first time I began working with this brilliant guy, I suspected that he was the only son of a doting mother. It stuck out all over him. One day over a few chummy drinks, I asked him point blank if this wasn't the case and he admitted it. His mother had praised him so much when he was a little boy that he came to hold the belief that everything he did was unique and that no one else in the world could have done as well under similar circumstances. Everything he did, no matter how trivial, was a personal triumph, as if no similar thing had ever been done before. He loved praise to such an extent, that when he was praised, he positively purred like a pampered cat. Consequently he was an easy mark for the palace janissaries and the sycophants in his organization. Just as he loved praise he hated criticism. When his views were challenged (and I often challenged them) he became petulant. But he couldn't fire me; though he'd have liked to many times I'm sure. On such occasions the spoiled little boy came to the surface and he would pout as he had years before when the naughty little boy across the street stole his marbles or wouldn't play his way. As a consequence of this attitude which was intensified by petty vindictiveness, the really good men in his organization hesitated to cross him.

Long before he finally got fired I warned him that unless he could learn to curb certain of his petty impulses he'd eventually get the sharp edge of the axe, as sure as God made green apples. I knew the temper and the attitude of the people who owned the business. When people who own a business are keenly interested in it, you play marbles their way or you don't play. But he couldn't see that. After all the business had been slipping badly when he took over the driver's seat; it was now several times larger and infinitely more profitable than it had ever been in its entire history. So he just couldn't be fired. He was irreplaceable. But he was fired. He was fired because in his inmost soul he still thought he was as good as his mama had taught him to believe.

Plant Site Selection

When it is done scientifically, the selection of the right plant site is a procedure requiring experience, broad knowledge of the industry, sharp judgment of economic values, present and future. But in the main all these values are invariably ignored by the drug and cosmetic industries, because these industries

RELIEF REACHES MILLIONS

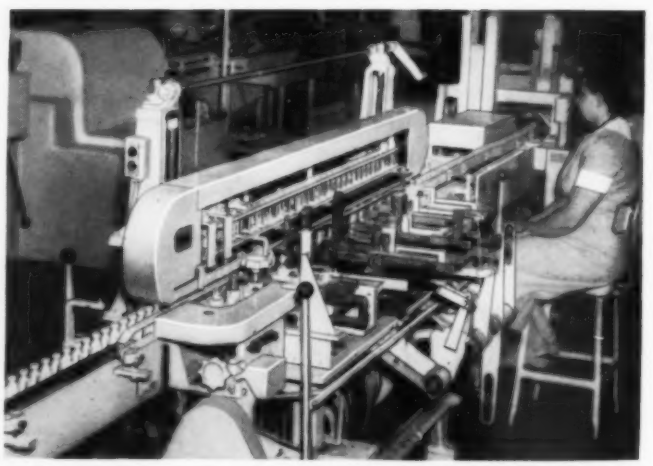
with the help of

PNEUMATIC

A familiar bottle in medicine chests, desk drawers, pockets and handbags, St. Joseph Aspirin is a highly respected and effective remedy to have around . . . for quick relief from discomfort and pain. This is one of the several famous drug brands owned by Plough Inc., of New York, Memphis and San Francisco.

Relief of a different kind . . . relief from production plagues of various types . . . is one of the major reasons why Plough Inc., like many leaders in other fields, use Pneumatic bottling equipment. They know, from experience, they'll have fewer bottling hold-ups and headaches with Pneumatic equipment doing their cleaning and labeling. And they value Pneumatic's "lower cost per container" operation — natural result of Pneumatic's design and engineering specialization. Invariably the most careful, the most profit-minded buyers of packaging and bottling machinery are the best Pneumatic customers.

PNEUMATIC SCALE CORP., LTD., 70 Newport Ave., Quincy 71, Mass. *Also: New York; Chicago; Dallas; San Francisco; Los Angeles; Seattle; Leeds, England. Canadian Division: Delamere & Williams Company, Ltd., Toronto.*



Installation of Pneumatic labeling and air cleaning units in production of St. Joseph Aspirin in the modern plant of Plough Inc.

★PNEUMATIC

Packaging and Bottling Equipment

are blessed with profit potentials which enable them to ignore the economics of correct plant site selection.

In these two profitable industries plants are located, not in the right places economically, but in accord with the following precepts:

Mr. Bigboss, having been born on the wrong side of the railroad tracks in his home town and having now made good in a big way, wishes to demonstrate to the folks back home, who were born on the right side of the railroad tracks, that they are small potatoes after all. So the plant goes to his home town where he can play grandly the role of the boy who made good and came back again to distribute largess (at stockholder's expense) to the folks back home.

A second good reason for locating a new plant is to place it near Mr. Bigboss' home. Mr. Bigboss may seldom visit the plant and usually does not except at rare intervals when he is entertaining V.I.Ps. but he likes to have the plant handy just in case.

A third good reason (and the most common one) is to locate the new plant in the town where it started, even if it is a cow town to hell and gone off the beaten track. Oh, well, so it goes.

Brass Hats On Brass Heads

In his memoirs currently running in The New York Times, Truman makes the observation that military people have scant regard for financial matters. That's the understatement of the century. A House Military Operations committee is now investigating why the Navy continued to buy McDonnell F3H-I jet fighters after discovering they would do everything but fly. The navy accepted sixty of these monstrosities after six of the jets, initially delivered, crashed, killing two pilots. Better engines were put into twenty-nine of the blunderbusses—at a cost of God knows how many millions of dollars additional—and the remainder (and this is the acme of naval stupidity or bureaucratic stupidity) are to be used for "armament research" and mechanic training! That's the way to run a navy. Find a plane that isn't worth a damn mechanically and won't even fly and use it as a trainer! Nobody's head will roll because of this multimillion dollar blunder that cost two priceless lives. The gilt will still remain untarnished on the hats of the navy brassheads who were in charge of the project.

Remember when the Navy built the Forrestal, which long ranger bomber people believe shouldn't have been built at all, and which, as I recall the figures, cost well over a hundred millions dollars; remember that when it was launched the Navy brass-hatted, brass-heads discovered that the flight deck was too narrow to permit the take off of the planes the ship was designed to carry, so the control island had to be removed and rebuilt some twelve or fifteen feet farther to starboard at a cost to us, poor sucker taxpayers, of some fifteen or twenty million dollars. Did any of the naval brass in charge of this operation get fired, demoted or publicly reprimanded? Not on your life! Once you get some brass stripes around your cuffs and some brass lettuce on your cap you are beyond reproach.

Remember the Nautilus? This submarine was launched after an expenditure of many millions when it was discovered that she was equipped with the wrong kind of piping. She had to be pulled apart at a further cost of untold millions and the proper piping installed. This time there was an investigation. The Navy discovered that a civilian stock clerk in a warehouse had issued the wrong kind of piping. So he was fired. I am surprised he wasn't made a full admiral. If a guy can make an inexcusable blunder like that and have it get by all the engineers, mechanics and naval inspectors, who supposedly were building the ship, the fellow must have been pretty smart and obviously was qualified to be an admiral. Of course the civilian stock clerk had one insuperable disadvantage: he wasn't an Annapolis graduate. He didn't wear the right school tie. So he got the boot.

These few incidents came to light because some snoopy reporters and congressmen asked intrusive and impertinent questions of the naval brass. What about the hundreds of millions of dollars that are being wasted that we hear nothing about? Imagine such situations occurring in an industrial organization! I have been witness to the summary firing of top executives who made blunders which were picayune in comparison with the cases cited.

The Press

Has it ever occurred to you that our form of government could not have survived and would not now survive for a dozen more years if it were not for the press—the freedom of the press. Our system of government is very rigid and entrenched. We have no system of recall. Once a politician is appointed or elected we have no way of throwing him out if he proves to be dishonest, incompetent, lazy, crazy or even traitorous. In the judiciary a man is appointed for life; in the bureaus of all branches of the government employees under civil service might as well be appointed for life since they never get fired even for incompetence. A president can be impeached but the process is long and difficult. So can a congressman or a senator. If it weren't for reporters snooping around looking for news, the corruption in our State and Federal government would be indescribable and would soon ruin the country altogether in spite of the efforts of the majority of honest, dedicated officials. Elected and appointed officials know that the press is the watchdog of the people—and I am not thinking only of the newspapers alone; I am thinking also of magazines, radio, television, trade papers and private newsletters as well. Our government officials—all of them—except the bureaucrats protected by the civil service system, know that to be elected or appointed, they

Dr. Niels C. Klendshoj

President

The ARNER CO., Inc.

says:

"To a very great extent, the efficiency of our production equipment governs our success and our profits. The direct relationship between low cost in setting up for individual orders, speed in production and low production cost means that we cannot afford any but the most efficient equipment. Our extensive modernization program is actually a great economy program."

The Arner Company's installation of all Colton equipment (one of the world's largest) has been consistently brought up-to-date over the years through the introduction of newer, more efficient Colton machines and today, this nationally-known, high-production plant includes Colton's newest in engineering and finest in performance.

If your tableting problem involves speed and economy, we invite your inquiries.

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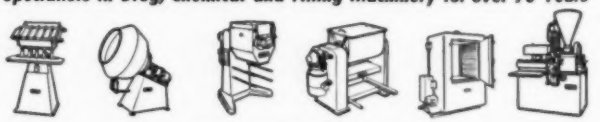
Specialists in Drug, Chemical and Filling Machinery for over 70 Years



TABLET COUNTERS | COATING STANDS | GRANULATORS | MIXERS | OVENS | MULTI-TUBE FILLERS

The NEW Installations are COLTON

must have the support of public opinion and public opinion is formed by the press. Public officials respect the press and fear it. Some of them hate it. There are many officials and bureaucrats who would label everything "top secret" if they could get away with it. There have been times when the press has revealed too much; there are times when the press has been remiss in its duty. In rare instances there have been deception and corruption in some elements of the press. But from the beginning of this nation no organization and no group of organizations have worked so tirelessly for us all and with such small financial reward as the people who comprise the press.

We are free men today, not because of the people who have governed us, but because of the press. Never forget that.

Distributism

For a long time I have been trying to think of a more fitting and descriptive name for our American form of altruistic, free enterprise. At last I think this is it: "Distributism." The word suggests just what out system of free enterprise does;—it distributes capital goods of all sorts and services and money to all persons, not only those who are able and willing to put forth the effort necessary to earn an appropriate share, but also to those who have nothing and are incapable of any form of mental or physical effort. Indeed our form of Distributism extends beyond our own borders. Quite apart from the countless billions in goods and money that we gave our Allies during the war—including eleven billion dollars to that ingrate state Russia—we have given away in one way or another in money, goods and services since the war the incomprehensible sum of fifty-five billion dollars. Never in the history of the world has any nation been so generous to friend and foe alike. Never in history has a Christian tenet been so grandly applied by a Christian nation. That's Distributism in action.

Distributism is universal in concept and timeless in effect. The capital goods and services our system is distributing are not destined for the benefit of this generation alone, but for many succeeding generations as well. The dams, irrigation projects, roads, foreign aid, reforestation programs, soil conservation projects, the schools, churches, hospitals, homes, museums and other public buildings will last for many generations, most of the research work being done in medicine, mental therapy and in all the exact sciences, although it costs the present generation billions of dollars, will confer far greater benefits upon succeeding generations than it will upon ours. Distributism is not selfish.

Recognizing the need for a name to describe our system which would not identify it with classic capitalism or the avaricious, individualistic capitalism known over most of the world, the National Council of Sales Executives adopted the name "Consumerism." I think this is a bum name. It sounds greedy. It sounds selfish. It sounds as if we are trying to gobble everything up. (Indeed I read in the London Times not long ago a letter from a British nobleman expressing alarm at the rate the U. S. is using up the world's raw materials in order to support its mass production economy.) "Consumerism" is not as good a name by implication as communism and it sounds too much like the latter to be readily differentiated by the more or less illiterate people of the world, our own people included. Distributism sounds different. It's a strong word. It means what it implies. It has power. It is understandable.

There is indeed much in a name, as we in this country of names and slogans well know. It is fortunate for us that Lenin and his successors, who adopted a good, descriptive name for their beliefs, made an all out attack on religion at the same time. Had they supported the churches and identified communism with the dogmas of religion, it would undoubtedly have swept the world. Because of this we do not have to worry. But we do have to worry about the world masses who predominate in numbers: the Asiatics and the Africans. To them we can hold out the hope of Distributism. We can endow that name with the sanctions of religion because all religions have one common aim and it can be summed up in one word—"Distributism."

Thought for Today

If you would learn a man's worst traits record those he most readily attributes to other people. People who live in glass houses will throw stones first.

New Production-Line Portable Coding Unit

A portable automatic code-dating machine that can be attached to a production line without breaking into it, has been introduced by Adolph Gottscho, Inc. The new machine, identified as the "Model TB" Markocoder, imprints code-dates and other changeable legends on the bottom of jars, bottles, cans, canisters and similar containers at speeds up to 600 units per minute.

Portability of the new machine permits unusual freedom in its application since it does not require alteration of an existing set-up and, where desired, can be switched from one line to another. Container surfaces to receive imprints may be flat or concave, flush or recessed.

The "Model TB" Markocoder machine uses readily interchangeable rubber type and fast-drying liquid flexographic inks to produce clean, sharp impressions and prevent smudging. It is completely automatic, requiring no attention during operation. It functions with a smooth rotary action that provides excellent control of containers on the line and does not interrupt their normal flow.

The "Model TB" Markocoder machine is compact, occupying only 24" x 30" of floor space alongside the line, and may be quickly adjusted to accommodate

Another

famous brand name cuts packaging costs with STOKES & SMITH Automatic Fillers!

At McCormick & Company, Inc.

Stokes & Smith Model HG-86-87 Automatic Tandem 4-Station Fillers have increased average accuracy of fill to consistently close tolerances. From "fluffy" cinnamon to "oily" nutmeg, they fill 120 or more containers per minute in a range of volumes from ½ to 4 ounces.

Whether your product is a sticky powder, free-flowing granules or hard-to-manage flakes, the versatile Model HG-86-87 Automatic Filler will reduce your packaging costs by increasing accuracy of fill at high speed. It fills cans, jars or cartons by volume, gross weight or auger-vacuum in sizes ranging from 1½" to 6" wide, 1½" to 4" thick, and 1½" to 8" high. It is ideally suited not only for spices and other foods but for drugs and cosmetics as well.

5 Cost-Cutting Advantages

Average Accuracy—plus or minus 1% for most products.

Versatility—handles a wide variety of products.

Adjustability—quick, easy changeover from one product or container size to another.

Speed—up to 145 containers per minute.

Cleanliness—auger, hopper, dust tube design assures dust-free fill.

For further details and specifications, write to:

STOKES & SMITH CO.

4912-N SUMMERDALE AVENUE, PHILADELPHIA 24, PA.

Pacific Coast: SIMPLEX PACKAGING MACHINERY, INC., 534—23rd AVE., OAKLAND 6, CALIF.

SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

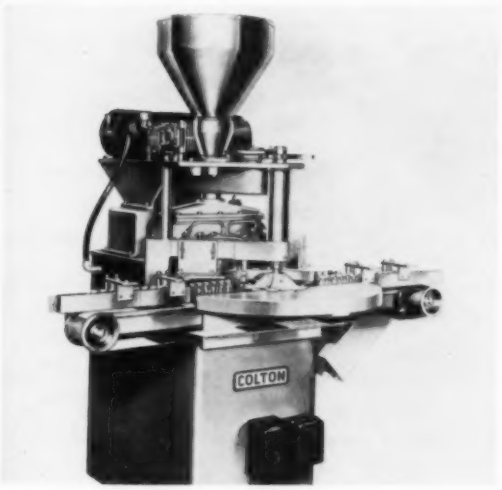
containers of different size and style. Its initial cost is said to be considerably lower than that of fixed-installation imprinters, while affording the same quality of printing impression and the same operating efficiency.

Complete details about the new imprinter are available from Adolph Gottscho, Inc., Hillside 5, N. J.

Colton to Exhibit Latest Models

Latest models of the company's high speed mixing, filling, drying, granulating, tabletting, and coating equipment for the chemical industry will be exhibited by The Arthur Colton Company, 3400 East Lafayette Ave., Detroit 7, Michigan in Booth 301 at the 25th Exposition of the Chemical Industries to be held in Convention Hall, Philadelphia from December 5-9, 1955.

Featured in the Colton Booth will be a No. 16 Coating Stand for coating and polishing tabletted materials, a No. 126 Multiple Liquid Filler for filling 6, 15 and 55-cc bottles, a No. 243 Triple Layer Rotary Tablet Press for producing three-layer tablets, a No. 540 granulator for granulating dry and semi-dry materials, a No. 636 Stainless Steel Mixer for mixing dry and semi-wet materials and a Model 2030E Drying Oven for drying granulations and mixtures.



Multiple Liquid Filler

The No. 16 Coating Stand is an improved model featuring a fluid drive that avoids power drive surges. A new valving system is included in the No. 126 Multiple Liquid Filler. This system prevents leaking and dripping when filling containers with aqueous solutions.

The No. 540 Rotary Granulator, to be shown in the Colton Company Booth features an unusual drive motion that enables either rotary or oscillating motions to be utilized for granulating materials as required. The Drying Oven, to be exhibited, is an improved model of increased capacity havingtwenty-four, 33 x 33-in. removable trays.

New Case-Coding Attachment

A new solenoid-activated, dual-action conveyor-line attachment that simultaneously marks both the rear and one side panel of shipping cases, has been developed by Adolph Gottscho, Inc. The new marker, designated as the "201 Rolacoder," can be attached to a conveyor, case-sealer or other handling machine where it automatically imprints code-dates, lot numbers or other legends on cartons or cases as they move along the line. It may also be used for marking the rear panel only.

The "201 Rolacoder" marker employs a unique action that enables it to mark two different panels without requiring cases to be turned and without interrupting their normal flow along the line. Micro-

switches connected to a solenoid in the unit are used to assure positive marking action and for ease of adjusting the marker when changing over from one case size to another.

The "201 Rolacoder" machine operates efficiently on all cases with a minimum length of 7", regardless of whether the flow of cases is regular or irregular. However, a minimum space of 10" between succeeding cases must be maintained.

Markings may be located on the case between 1" and 15" from its bottom. They may consist of up to 11 letters or figures, depending on their size, on a single line up to 2" long. Imprinting is done from easily changed rubber type and ink of almost any color.

When it is desired to mark all four sides of a case in a single pass, the new "201 Rolacoder" machine may be set up in tendem with the previously introduced "500 Rolacoder" marker. The latter is a friction-operated unit that marks the front and right-hand panel, as contrasted with the rear and left-hand panel marking action offorded by the "201" model.

Complete details about the "201 Rolacoder" marker may be obtained from Adolph Gottscho, Inc., Hillside 5, N. J.

Oscilveyor Vibrating Conveyor

A new four-page bulletin offered by the Gifford-Wood Co. illustrates and describes the company's

THERE'S *Merchandising Magic....* IN GLASS AEROSOL

New success stories of self-spraying packages are being written daily. What about your product? If now marketed in liquid form, it may gain new sales appeal and value when offered in pressurized containers. And you need not invest a penny in equipment or personnel; we can take care of all filling, storing and shipping. Write for free folders... *now!*

CONTINENTAL OFFERS:

Complete Filling Service

We do not merchandise any products of our own. Our sole operation is contract and custom filling of containers with *your* products... liquid, pressurized or aerosol ... in glass or cans.

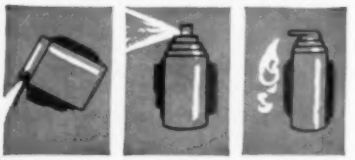
Extensive Laboratory and Production Facilities

Continental conducts chemical analysis and continuing research on dispensing methods and containers. Filling equipment is the finest in the industry, geared to handle orders of any size. Quality control and inspection safeguard your shipments.

Warehousing and Drop Shipping in Bulk Lots

Extensive storage space permits you to use our two centrally-located plants as nation distribution points, with consequent large savings on freight costs. We handle shipping and paper work. Your orders are ready when you want them.

CONTRACT AND CUSTOM FILLING



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CONTINENTAL FILLING CORPORATION

PLANTS • DANVILLE, ILLINOIS — HOBART, INDIANA

new Oscilveyor vibrating conveyor. The bulletin explains the Oscilveyor's operation and points out features that make it particularly adaptable for handling flakes, chips, grains, powders and similar materials in bulk.

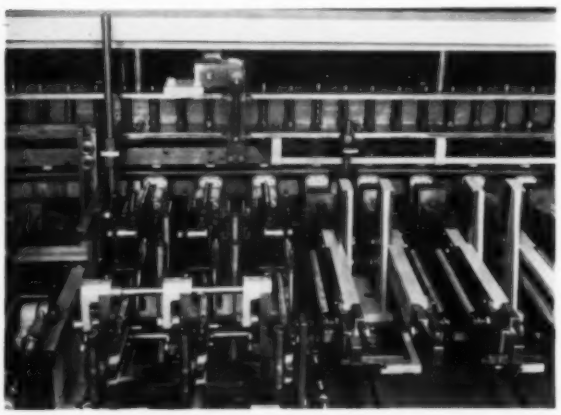
Seven photographs in the bulletin illustrate the Oscilveyor and its component parts. One section includes three line drawings with an explanation on how to compute dimensions for the drive unit using standard 10-ft. trough sections.

Ten major advantages of the Oscilveyor are outlined in the bulletin, which also lists 41 products that can be successfully handled by this conveyor.

For copies of the Oscilveyor bulletin, write to Gifford-Wood Co., Hudson, N. Y.

Tri-Mac Labeler

Pneumatic's new Tri-Mac Labeler is designed to meet requirements for the automatic application of front or both front and back spot labels at speeds up to 180 containers per minute. This machine incorporates all the major features of the highly regarded Simplex and Duplex models of McDonald-type labeling equipment of which Pneumatic has successfully installed hundreds of units during the past twenty years.



In appearance, the Tri-Mac is similar to the 4" Duplex machine. It has a simplified straight-through intake with dog chain transfer which feeds three bottles at a time directly into the intermittent carrier mechanism of the machine. Adhesive is stenciled onto the container and affixed labels are "wiped-down" at two pressing stations. Side take off of the finished bottles is eliminated through use of a dial plate which transfers the container from the intermittent chain carriers onto the continuous block chain discharge conveyor.

McDonald labeling machines operate at 60 cycles per minute, therefore guaranteed speeds for the Simplex is 60; the Duplex, 120 and the recently developed Tri-Mac, 180 containers per minute. Essentially the Tri-Mac is equipped to handle the same full range of sizes and shapes that are run on the 4" Duplex unit.

The Tri-Mac Labeler completes the line of high speed bottling equipment offered by Pneumatic which includes: Jagenberg Lightning labelers for round containers; 18 and 30-head Rotavac Fillers; Rotary Vacuflow Filler; and the 6- and 8-head Pneumacap Cappers.

Laboratory Three Roller Mill

The development of the new model No. 52LC 4½"x10" Laboratory Size High Speed Three Roll Mill has been recently announced by Charles Ross & Son Co., Inc., Brooklyn. It may be operated as a conventional Mill with fixed center roll and four-point adjustment or can be operated with floating center roll and two-point adjustment. When differences in pressure between feed and takeoff rolls are desired, the center roll is in fixed position. When equalized pressures are preferred, the Mill can be converted within minutes to have self-aligning or floating center roll. To convert from one type of operation to the other can be easily done, without special tools or kits, by any operator.

The Mill is built as a replica of the larger production size Mills to assure exact laboratory or pilot scale duplication of results obtained on the larger Mills. The heavy one piece cast iron frame and extra heavy construction of all parts enables the Mill to withstand continuous use when used for small batches or limited production.

For quick cleaning, the apron is detachable and end plates hinge upwards for intermittent cleaning or can be removed from the Mill, if desired, and replaced without resetting.

Mill is mounted on heavy steel bench which has hingeable extension shelf at front for placing containers under apron of the Mill.

These new Mills are reported to give very satisfactory results in laboratory use due to the ease of operation and cleaning, and the heavy construction provides trouble-free operation when the Mill is used for continuous small production.

Improve your cosmetic product

... keep it factory fresh

...WITH SONNEBORN'S VITAMIN E FORTIFIED CARNATION WHITE MINERAL OIL

- √ ***exceptional purity!***
- √ ***excellent stability!***
- √ ***outstanding odor and color resistance!***
- √ ***longer shelf life!***

Creams, hair oils, hair dressings, suntan oils . . . whatever your cosmetic product . . . the White Oil you use should be fortified with Vitamin E to assure greatest stability against odor and color development. Now Sonneborn Research Laboratories have developed and patented a Vitamin E-fortified white oil—CARNATION White Mineral Oil—to help make your finished product better . . . keep it factory fresh.

Give your cosmetic product the stability, the superior shelf life, the greater customer satisfaction—which CARNATION White Oil can help assure.

Why take chances when protection costs no more! Insist on Sonneborn CARNATION White Oil fortified with Vitamin E!

Achieved by Sonneborn RESEARCH

L. SONNEBORN SONS, INC.

New York 10, N.Y.

Compounder's Corner

Denture Cleansers

Denture cleansers as described by T. Ruemele in *Retail Chemist* 26:60, 1955 must comply with the following requirements:—

In aqueous solution they are expected to dissolve or loosen any discoloration, coating and residual food in order that these deposits can subsequently be rinsed off with water;

In addition to the cleaning action, They are required to display both a germicidal and a deodorant action;

They must be compatible, both chemically and hygienically, with the materials used for the production of artificial teeth;

They must preferably be odorless and tasteless, or, at any rate, not impart any odor or taste to the denture;

They must be handy and clean in application.

Generally, denture cleansers consist of alkaline and enzymic compounds, substances for binding the agents responsible for the hardness of the water, wetting and foaming agents, additives of oxygen and carbon dioxide-developing salts, germicidal ingredients, as well as essential oils, and sometimes innocuous alkali stable coal-tar dyes.

The alkaline agents comprise non-hygroscope and non-corrosive alkaline salts, e.g., trisodium phosphate, sodium pyrophosphate, sodium carbonate, borax, sodium bicarbonate. In the presence of warm water they induce solution or softening and partial saponification of starch, protein and fat, and hence elimination or loosening of the residual food. The alkalinity, measured as 0.1N solutions, is 12.0, 11.6, 9.2 and 8.4 for trisodium phosphate, sodium carbonate, borax and sodium bicarbonate respectively.

The basis of the enzymic cleansers are protein and fat dissolving enzymes, e.g., trypsin and lipase, the former being protein dissolving and the latter fat dissolving. In alkaline solution papain is similarly effective. As the enzymes are active in slightly alkaline solutions, sodium bicarbonate or small amounts of sodium carbonate, together with sodium sulfate as filler, may be used for the manufacture of these cleansers.

In order to prevent precipitation of the calcium and magnesium salts in hard water, the incorporation of phosphates, notably calgon, is justified.

Wetting and foaming agents include usually fatty alcohol sulfonates, fatty acid condensates or alkyl benzene sulfonates, the latter displaying a germicidal action within 10 minutes in a 0.2 per cent solution of a *p H* of 11.9 at the same time. It is recommended that these foaming agents be used in conjunction with carbon dioxide developing salts, but the same advantages are achieved with the simultaneous use of oxygen developing salts, e.g., perborates, percarbonates, persulfates. The idea of employing either carbon dioxide or oxygen developing salts is to enable the foam to penetrate more deeply and to display an enhanced cleaning action. Enhanced germicidal action may be easily obtained with the introduction of suitable phenols or special germicidal additives, e.g., chloramin, etc.

As regards the essential oils added with a view to improving both the odor and the taste, peppermint oil appears to be the preferred substance, but all the oils generally used in tooth pastes might equally be suitable for this type of cleanser.

It is desirable that denture cleanser should be presented in powder form to provide a handy and clean application.

Deodorant

According to Earl Wilson in the New York Post:

Roger Price heard of a cheap new deodorant. It's a bag of clothespins, and you give one to all your friends.

Improved Lotion Vehicle

Twenty-five surfactants were evaluated by D. Y. Barker, R. G. Shaheen and H. G. DeKay (*J. Am. Pharm. Soc. Pract. Pharm. Ed.* 16:548, 1955) in three established lotion vehicles for their ability to form stable emulsion-type lotion vehicles.

Ingredients commonly employed in emulsion-type lotion formulas were tested in three modified formulas for their ability to form stable emulsion-type lotions with the twenty-five surfactants.

Four surfactants—Arctic Syntex, Alromine RA, Betanol 520 and Alrosept MBC 50—indicated promise of forming stable lotion vehicles.

A formula consisting of cetyl alcohol, Amerchol CAB, glycerin and Alromine RA, all in a one per cent concentration, produced a lotion vehicle that was compatible with all the medicaments tested except 10 per cent coal tar solution U.S.P.

Compatibility with 10 per cent coal tar solution U.S.P. was accomplished by modifying the surfactant, Alromine RA, 0.5 per cent, with Solvadine 0.5 per cent.

Nitroparaffin Derivatives

Commercial Solvents Corp., at a symposium held October 26, reintroduced nitroparaffins and their derivatives while marking 20 years of cooperation with Purdue University and noting the operation of a new $5,000,000 plant to produce 10,000,000 pounds of nitroparaffins and derivatives annually.

Obviously useful for synthetic purposes, a number of these derivatives will certainly repay investigation with respect to their compounding properties in cosmetic and pharmaceutical mixtures. This seems to be especially the case for the amines, diamines, amino alcohols and amino diols.

Bacitracin Stability

Bacitracin in ointments containing zinc oxide, calamine, and ethyl aminobenzoate was found by J. M. Plaxco and W. J. Husa (*Am. Pharm. Assoc. 102nd meeting, 1955*) to retain most of its antibacterial activity at least six months. The activity of bacitracin was slowly destroyed in presence of cholesterol, stearyl alcohol, Span 20, Span 65, Tween 61, Tween 80, and several other substances. The activity was rapidly destroyed in presence of water, glycerin, propylene glycol, phenol, tannic acid, ichthammol, Ceepryn chloride solution, and Zephiran chloride solution. Some drugs affected the activity of bacitracin differently in different ointment bases; among these were boric acid, sulfur, sulfathiazole, ammoniated mercury, coal tar, resorcinol, mercury bichloride, and a mixture of benzoic and salicylic acids.

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Lantrol

Lantrol is a non-sensitizing lanolin produced by Malmstrom Chemical Corp. of Newark, N. J. by a new fractionation technique which yields a bright straw-colored liquid meeting all of the U.S.P. specifications or lanolin except melting point. The product has not undergone chemical modification, so that formulations utilizing Lantrol can be advertised as containing lanolin. Clinical tests on human skins have shown the material to be neither a primary irritant, a skin fatiguer nor a skin sensitizer. This liquid lanolin fraction, containing 20 per cent of cholesterol, is free from objectionable tackiness and exhibits increased solubility, vitamin and hormone retention and drug release. It is freely soluble in a wide variety of cosmetic and pharmaceutical ingredients, particularly mineral oil and aerosol propellents.

Preserving Ophthalmic Solutions

Present official regulations require sterility for all ophthalmic solutions prepared by pharmaceutical manufacturers. Under the present ruling, however, hospitals and retail pharmacies are exempted from the regulations because of the problems involved in preparing sterile ophthalmic solutions, especially by filtration procedures. The use of chemical agents for preserving ophthalmic solutions appears to be the only alternative in the prevention of serious ophthalmic infections.

In the selection of a suitable chemical agent as a preservative, consideration should be given to several requirements that should be inherent and sought for in its adoption. Some of the important features are the following:

Chemically compatible with the ophthalmic drug.

Have no effect on the pharmacologic activity of the ophthalmic drug.

Should have a wide bacteriostatic and preferably a bactericidal activity against organisms encountered in the routine compounding of ophthalmic solutions.

Should be readily soluble in distilled water and certain buffer solutions.

Should not significantly alter the *p H* and tonicity of the ophthalmic solution.

Should be nontoxic and nonirritating to ocular tissues in the concentrations used for preserving ophthalmic drugs.

Should remain active and stable on storage under normal conditions.

In testing compounds against 26 strains of *Pseudomonas aeruginosa* and four species of *Proteus* in a simple buffer solution, in the absence of an ophthalmic drug, the order of activity of the agents from high to low were found to follow the pattern: Benzalkonium chloride > phenylmercuric nitrate > phenol or chlorobutanol > parabens > thimerosal > phenylethyl alcohol. When the preservatives were added to aqueous solutions of ophthalmic drugs experimentally contaminated with *Pseudomonas aeruginosa*, the order of activity of the compounds was: Benzalkonium chloride > chlorobutanol > phenol > parabens > phenylmercuric nitrate > phenylethyl alcohol or thimerosal.—*C. A. Lawrence* (*J. Am. Pharm. Assoc. Sci. Ed.* 44:457, 1955).

Malonaldehyde Diacetal

The diacetal of malonaldehyde is now out of the development stage and commercial quantities are available from Kay Fries Chemicals.

Malonaldehyde diacetal has the chemical versatility common to other members of the dialdehyde family. The aldehyde itself is easily produced quantitatively by hydrolysis. In addition, it has been suggested that it will act as an insolubilizing or cross-linking agent for proteins and/or polyhydroxy materials.

The aldehyde and its diacetal undergo the typical dialdehyde reactions, such as dioxime formation. Higher n-alkoxy aliphatic dialdehyde acetals may be formed by the reaction of malonaldehyde diacetal and alkyl vinyl ethers. With substituted anilines it forms beta-amino substituted acroleins. With hydrazines the cyclized products are pyrazoles; while with ureas, its cyclized products are pyrimidine derivatives, as in the reaction of guanadine to form 2-amino pyrimidine.

At the present time, the mixed diacetal (malonaldehyde, triethyl monomethyl diacetal) or chemically more simply 1,1,3-triethoxy-3-monomethoxy propane (TEMP) is commercially available. In addition, experimental and pilot work is currently being conducted on the tetra methyl diacetal (1,1,3,3-tetramethoxy propane (TMP)).

Antiperspirant Gels

Gels prepared by adding borax to solutions of Chlorhydrol were found to soften too much at summer temperatures. Attempts to correct this defect by adding other ingredients to the gel resulted in products which were too stiff at low temperatures. The difficulty was solved by including some alcohol in the formulation. The resulting products maintained a satisfactory consistency over the normal temperature range, although at low temperatures they could not be extruded easily from collapsible tubes. In the example given below, the glycerin and propylene glycol act as lubricants to improve the extrudability of the gel at low temperatures.

ANTIPERSPIRANT JELLY

Solution A

Chlorhydrol solution, 50 per cent (w/w)	**400**
Borax	**40**
Water	**449**

Alcogel

Solution A	**66.7**
Ethyl alcohol	**15.0**
Glycerin	**3.0**
Propylene glycol	**3.0**
Water	**12.3**

Procedure: To make solution A, dissolve borax in water, heat to 60° C, and add to Chlorhydrol solution at 60°. Add the other ingredients to solution A while it is still warm. Filter and pour into container.

A sodium aluminum chlorhydroxide complex is now available commercially under the designation Chlorhydrol S-5. Concencentrated solutions of the double complex are viscous and set to a gel on the addition of alcohol.

For the preparation of an antiperspirant jelly, it is recommended that the ingredients be used in proportions to give approximately eight per cent Al_2O_3 and 34 per cent ethyl alcohol by weight in the finished product. A jelly of this composition can be prepared by dissolving 34.5 g Chlorhydrol S-5 in 70 g. water and adding 55 g. ethyl alcohol. It sets to a soft gel on standing overnight.—*Schimmel Briefs.*

Bentonite Thixotropy

The use of the hysteresis loop method for the determination of the thixotropic state of bentonite suspensions was established and the use of the planimeter to measure hysteresis loops introduced by H. B. Bernstein and M. Barr (*J. Am. Pharm. Assoc. Sci, Ed.* 44:375, 1955). The concepts of the thixotropic unit and the thixotropic ratio were devised so that comparison of the degrees of thixotropy of bentonite suspensions could be easily made. The authors showed that the thixotropic state of bentonite suspensions exists in concentrations as low as 4.3 per cent w/v of bentonite. The thixotropic behavior of bentonite suspensions was found to be affected by *p*H. Yield values were demonstrated to give an indication of the viscosity of the suspensions.

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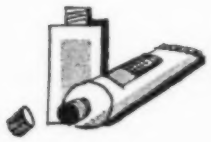

Advancing Therapy

Tranquilizing Drug

Miltown (2 - methyl - 2 - *n* - propyl - 1,3-propanediol dicarbamate) according to L. S. Selling (*J.A.M.A.* 157:1594, 1955) is a practical, safe, and clinically useful central nervous system depressant. It is not habit forming. Miltown is of most value in the so-called anxiety neurosis syndrome, especially when the primary symptom is tension. Miltown is also useful in keeping alcoholics sober after withdrawal is completed, and it has much value in accomplishing withdrawal with a minimum of discomfort. Favorable results have also been obtained in neurogenic conditions of the skin, in abdominal discomfort, and in several kinds of headache. Miltown is an effective dormitacient and appears to have many advantages over the conventional sedatives except in psychotic patients. It relaxes the patient for natural sleep rather than forcing sleep.

The drug appears to be less effective in psychoses, although it may be of value, and is certainly worth a trial in ambulatory schizophrenics according to J. C. Borrus (*J.A.M.A.* 157:1596, 1955). It also offers promise for further investigation in such diseases as epilepsy and paralysis agitans. In 68 per cent of all the cases studied and in 78 per cent of the anxiety states, there were favorable results in terms of relief of symptoms and a return to social productivity. The absence of toxicity, both subjectively and objectively, is an important feature in favor of Miltown. In addition, there were no withdrawal phenomena noted on cessation of therapy, whether it was withdrawn rapidly or slowly.

Noludar Sedative

Noludar (3,3-diethyl-2,4-dioxopiperidine or Ro 1-6463) is a new nonalkaloidal central nervous system depressant that is not a barbiturate. It was given by O. Brandman, J. Coniaris and H. E. Keller (*Journ. Med. Soc. N. J.* 52:246, 1953) for night sedation to 1,015 patients; 1,000 of these received 250 mg. doses for three consecutive nights. The resulting average sleep induction period was 29 minutes and the average duration of sleep seven hours. Side-effects such as drowsiness, vertigo, and nausea were experienced by only 13 patients: 979 patients rated the hypnotic effect of noludar as at least equal to barbiturates they had previously received. Noludar was administered for daytime sedation to 510 patients who were given 50 mg. doses three times a day for four weeks. This plan provided sedation comparable to that obtained from 16 mg. of phenobarbital three times a day. There was no drowsiness or oversedation from Noludar, and all patients were pleased with its action. The authors conclude that Noludar is an effective sedative-hypnotic of fairly prompt onset and short duration of action that, in therapeutic doses, is distinguished by excellent tolerability and meets with wide patient acceptance.

Phenylethylacetamide

Phenylethylacetic acid has a definite antiatherogenous effect in experimental animals. J. Cottet and A. Mathivat (*Presse med.* 63:1005, 1955) used phenylethylacetamide (hyposterol) in the treatment of 37 patients with atheromatous cardiovascular disease over a period of from one to six months. It was found that the drug has an effect on the total serum lipids. Cholesteremia was decreased in 75 to 80 per cent of the patients, and this effect was more marked as the amount of blood cholesterol was higher to begin with. The decrease was generally statistically significant and sometimes reached 40 to 50 per cent, even 60 per cent. Normal rates of cholesteremia were not affected. In one-fourth of the patients a transitory rise in blood cholesterol was observed between the fourth and eighth weeks of treatment; this was usually followed by a fall to levels below those seen before treatment. The phenol turbidity reaction of Kunkel was decreased as much as 50 per cent. Lipemia was affected in about the same way as cholesteremia. Lipid fractionation at electrophoresis was modified by hyposterol, with a tendency toward normalization of the profile. It is thus concluded that phenylethylacetic acid acts on the biochemical disturbances that characterize atherosclerosis, tending to restore the organism to normal.

Dihydrocholesterol

It has been demonstrated in birds and in rabbits that the rise in plasma cholesterol and the incidence of arteriosclerosis resulting from the feeding of diets rich in cholesterol can be greatly reduced by the addition of dihydrocholesterol to the diets. It was observed, however, that some of the rabbits fed a diet containing two per cent of dihydrocholesterol developed some arteriosclerosis. As a consequence, a long-time feeding study was undertaken by C. W. Nichols, S. Lindsay and I. L. Chaikoff (*Proc. Soc. Exptl. Biol. Med.* 89, 609, 1955) with White Leghorn cockerels fed a diet containing 0.5 per cent of dihydrocholesterol for six months. This feeding induced extensive arteriosclerosis, the lesions being identical with those resulting from feeding cholesterol.

Oleander Glucoside

Sixty patients with cardiac decompensation were treated by C. G. Bar and G. Zeitler (*Deut. med. Woch.* 80: 1038, 1955) with oleandryl compound, one tablet of which contains 0.05 gm. of the total glucoside of oleander, 12 mg. of pentaerythritol tetranitrate and 25 mg. of sodium cholate. The authors' preliminary report is concerned with 33 of these patients who were discharged from the hospital after four weeks of treatment that was continued ambulatorily with the patients followed up for periods up to nine months. Five patients with most severe cardiac decompensation were given initial treatment with strophanthin and digitoxin for a short period. Treatment with oleandryl compound was instituted after partial compensation had been achieved. The dose of the oleandryl compound varied according to the severity of the clinical state. Diuresis was the guiding factor. The tolerance to the drug was good; undesirable side-effects such as nausea, vomiting, and diarrhea were not observed, not even after the administration of nine tablets daily. In general, six tablets daily were sufficient for prompt and continued diuresis even in patients with severe decompensation of the right and left side

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of the heart in whom satisfactory removal of water could not be obtained by combined treatment with strophanthin and aminophylline. Of 23 patients who complained of angina pectoris, 19 obtained complete relief with the oleandryl compound. Although the number of patients treated with oleandryl compound is small, the results obtained suggest that the drug is of value in the treatment of patients with mild or moderately severe forms of chronic cardiac decompensation, particularly in the treatment of the so-called old-age-heart. The drug is particularly suitable for ambulatory treatment, since a cumulative effect or undesirable side-effects need not be feared even after prolonged administration.

Sarcolysine

A detailed study was made by L. F. Larionov, et al. (*Lancet* 2:169, 1955) of the activity of sarcolysine (p-di-2-chloroethylaminphenylalanine) against the transplantable rat sarcoma 45. Complete regression of the tumor was obtained but some toxic effects were observed when intraperitoneal injections of 10 mg/kg every 72 hours were started as late as the 25th day after inoculation, i.e., only seven to 10 days before the untreated animals died. Complete regression of all tumors, without definite evidence of toxicity, occurred when treatment was started seven days after inoculation and consisted of a single injection of 15 mg/kg or of three injections of 5 mg/kg at 72-hour intervals. At the end of treatment, a small nodule containing no sarcoma cells was all that remained of the tumor. No relapses have occurred during follow-up periods of three months.

Preliminary studies showed that the growth of rat spindle-cell saroma (strain M1) and mammary adenocarcinoma in mice (strain RSM) was inhibited by 55 to 80 per cent.

Sarcolysine possesses an inhibiting action on the blood-producing system resembling that of di-(2-chloroethyl) methylamine, but the doses of sarcolysine must be five times greater.

Clinical trials of sarcolysine in neoplastic diseases have been begun.

Gastric Ulcer Treatment

R. R. Hamilton (*Brit. Med. J.*, 1955, 2, 827) is the author of the first report to be published in the British medical Press on the treatment of peptic ulcers with Roter tablets. The tablets contain heavy magnesium carbonate, 400 mgm.; sodium bicarbonate, 200 mgm.; calamus, 25 mgm.; frangula, 25 mgm.; and bismuth subnitrate, 350 mgm. The observations were made on 98 patients, 93 of whom were ambulant, and they were instructed to take two tablets three times a day after food for three weeks, and, thereafter, one tablet three times a day for two months. Fifteen cases with a long history of frequent relapses were instructed to continue with a maintenance dose of two tablets daily for a year. Within one month 81 per cent of the patients had become symptom free, 70 per cent becoming free during the first week, and there was a satisfactory response in 90 per cent of the cases. During the first year, however, there was a relapse rate of 57 per cent, but a reduction in the number of relapses was recorded in 15 cases kept on a maintenance dose for a year. No toxic effects were observed during the tests, but the recommendation is made that the tablets should not be administered to young children. The author states that although the tests were handicapped by the absence of controls, the results confirm his own view that the beneficial effect of Roter tablets cannot be explained on purely psychological grounds.

Anticholinergics

With optimal effective dose, propantheline, long-acting propantheline, mepiperphenidol, and methscopolamine bromides and Elorine sulfate (1-cyclohexyl-1-phenyl-3-pyrrolidino-1-propanol methylsulfate) were effective in all four patients, in that periods of anacidity of pH 4.5 or higher were produced consistently according to D. C. H. Sun, H. Shay and J. L. Ciminera (*J.A.M.A.* 158: 713, 1955). Atropine methantheline bromides, and scopolamine N-butylbromide were effective in some, and G 3012 (diethylaminoethyl dimethylphenyl-cyclopentane carboxylate) and homatropine methylbromide were ineffective in all. The number of patients used was small; however, they were studied under conditions simulating as closely as possible those the physiologist requires in his study of gastric secretion in experimental animals.

Hydrocortisone Ointment

Concealed trials with hydrocortisone ointment by B. Russell, J. S. Pegum, N. A. Thome and R. V. Grange (*Lancet*, p. 1038, 1955) alternated with its vehicle alone, and a longer-term independent survey of results, have shown that hydrocortisone was remarkably effective in many patients with lichen simplex, discoid eczema, otitis externa, and anogenital pruritus. In infantile eczema and in idiopathic eczematous dermatitis of the hands the improvement was less obvious. In Besnier's prurigo local improvement was sometimes obtained, but the general results were poor. In itchy psoriasis of the anogenital region the results apparently depended on the efficacy of the vehicle.

Hydrocortisone ointment is also highly effective in contact eczematous dermatitis.

Improved Tetracycline Production

Fermentation studies indicate that a simple chemical, sodium bromide, can significantly increase the yield of tetracycline from the organism *Streptomyces aureofaciens*.

Addition of sodium chloride, on the other hand, was reported to result in a greater yield of chlortetracycline. Without the addition of bromide or chloride, the Streptomyces produces both antibiotics at a ratio of somewhat more than two parts of chlortetracycline to each part of tetracycline.

The study, reported in the August issue of *Antibiotics and Chemotherapy* by Drs. A. Gourevitch, M. Misiek and J. Lein, also indicated that, under certain conditions, addition of bromide results in the formation of bromtetracycline.

Bromide apparently inhibits the utilization of chloride by the Streptomyces and thereby increases the ratio of tetracycline to chlortetracycline, while chloride reverses this inhibition.

Dental Anesthetic

A series of observations on 13,908 patients injected with six different local anesthetic solutions has been made by approximately 300 practicing dentists in order to report clinical experience with them.

Solutions containing propoxycaine, a new local anesthetic as reported by M. L. Tainter, G. D. Wessinger and J. W. Lee (*J. A Dent. Assn.* 51:21, 1955) produced a high incidence of completely satisfactory anesthesia with a more infrequent need for reinjection. At the same time, the average speed of onset of anesthesia from the propoxycaine combinations was the fastest yet observed with any available solutions under comparable conditions of use. This increased potency and fast onset were not purchased at the expense of unduly longer duration nor at the expense of clinical tolerance.

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Banana Flavor

Although a tremendous amount of research has been done on banana, as is so often the case, little has been done on the aromatic constituents of the fruit. Kleber in 1913 reported amyl acetate in bananas; von Loesecke identified the amyl esters of acetic and butyric acids together with appreciable amounts of acetaldehyde and small quantities of ethyl and methyl alcohols in the ripe Lacatan variety of banana. A yield of 0.0013 per cent by weight of essential oil was obtained by an ethyl ether extraction.

Amyl esters are so characteristic of banana that anyone with a vague knowledge of flavoring feels capable of mixing a few amyl esters with vanillin and/or some of the citrus oils and producing his own banana flavor. Some of the synthetic tasting banana flavored products on the market are a result of this type of compounding and the general misconception prevails that banana flavors are simple.

In common with other fruits in the same general category, bananas have a typical green fruit nuance which cannot be supplied by amyl esters. Flavor chemists supply this nuance in a number of ways but in the past methyl heptine carbonate or a homolog, in traces, was used to supply this character. Too liberal use of this aromatic results in a flavor that "talks back" when the end product is consumed. It is also a material that a number of basic flavor houses hesitate to use and favor its restriction in food products. 3-hexen-1-ol or 2-hexenal have been identified by various investigators in raspberry, strawberry, grapefruit, apple, grape and many other natural products. Derivatives of this alcohol certainly improve the naturalness of banana flavorings. It is quite easy to see when one studies the physical properties of amyl alcohol and 3-hexen-1-ol and their derivatives, how the two alcohols can be present together in a fruit and be reported simply as amyl alcohol. This is especially true of earlier works when the widespread nature of the unsaturated alcohol was not known and methods of detection were less refined.—*Giraudan Flavorist.*

Australian Oils

E. macarthuri is an unusual eucalypt for it yields an oil containing geranyl acetate. It has a pleasant odor, totally different in character from any other eucalyptus oils. It is used for certain types of perfume and for the denaturing of alcohol for perfumes.

E. citriodora yields a lemon-scented oil rich in citronellal. This constituent is converted into citronellol which has a strong rose odor.

Four other commercial species, *E. cenorifolia*, *E. elaeophora*, *E. siderozylon* and *E. leuxoxylon*, are also exploited for their oils which are rich in cineole.

There are other types of trees in the Australian bushland which also yield essential oils. These are the "titrees" (*Leplospermum* and *Melaleuca species*), *boronias*, sandalwood, and the Huon pine.

Four species of "ti-tree" are used in the commercial production of oil. Two of the most notable are *Leplospermum citratum*, which possesses a strong lemon odor and is used for the manufacture of lemon essence, rose perfume and synthetic violet perfume, and *Melaleuca alternifolia* which yields an oil with a pronounced nutmeg odor. This oil is non-poisonous and non-corrosive and is used extensively in medical and dental preparations.

There is also a large "ti-tree" commonly known as "paper bark," *Melaleuca viridiflora*. Two different varieties exist, one yielding a camphor-like oil with a eucalyptus smell, and the other having a rose-like odor. The paper bark of this tree is used as an insulating material and also in linoleum manufacture. *Malaleuca ericifolia*, another small "ti-tree" growing in the swamps, yields an oil rich in linalool.

Oil from the Western Australian sandalwood is distilled from the stems, roots and butts. Its main use is in the manufacture of soap perfumes, although small quantities are sold to the East for self-medication, and sometimes for incense.

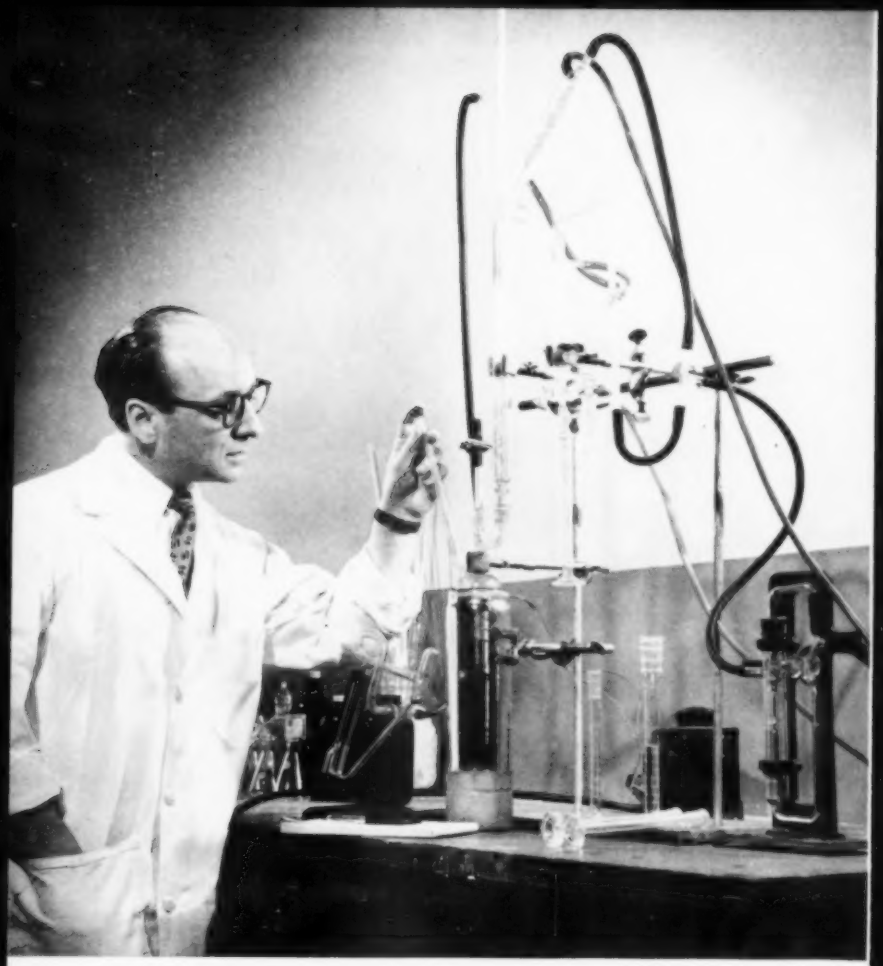
A new industry which has been established after great difficulty is the production of lavender oil. France was once its exclusive producer, but today some of the finest commercial lavender oils are produced in the island State of Tasmania, from plants which came originally from France.—P. Davison, *Chemical Prod.* 18:369, 1955.

Rose de Mai

The favorable and particularly mild climate of the Mediterranean countries allows the profitable cultivation of *rose de mai*, *Rosa centifolia*, one of about a hundred rose varieties existing in the Northern hemisphere. The yield in concrete varies between 0.2 and 0.27 per cent. The final elimination of petroleum ether, must be made very thoroughly as the concrete should in no case smell of the solvent. After a storage of six or seven months the concrete of *rose de mai* takes on a grayish-green coloration and loses its odor in aging. Part of the concrete is immediately used in perfumery as a component of compositions which are not to be soluble in alcohol. Solubility in alcohol can be achieved by converting the concrete into absolute with the aid of alcohol. The yield in absolute amounts to 60 per cent. The residual waxes are melted together to be used in the pharmaceutical, cosmetic, and chemo-technical industries. *Rose de mai* absolute has with the years come to be an essential element for the composition of de luxe perfumes, but its very high price prohibits its use in many cases.—D. B. Braun, *Dragoco Ber.* 1955, p. 152.

Odor and Taste

It would seem that all components of sensation experienced in the buccal cavity, nasopharynx and adjacent structures, vision, hearing and the psychologic state of the person at the moment, as well as olfaction, may combine to form a sensory composite which is identified as "flavor" in the brain according to F. C. Clark and H. W. Dodge, Jr. (*Postgrad. Med.* 1955, p 142). In many people, however, it would appear that olfaction is of primary importance, and that the loss of this sensation deprives the person of his ability to appreciate flavors. Others, however, can continue to identify and enjoy the flavor of many foods in spite of the absence of the



EXPERIMENTAL research is a continuing part of the day-to-day activities of our Clifton plant's research staff. Dr. Kurt Kulka, a specialist of note in the field of aromatics and essential oils, is in charge of this work, much of which has to do with the betterment of yields and quality of raw materials through improvement of laboratory techniques and manufacturing processes. He is shown in the picture above examining an apparatus for semi-micro distillation of aromatic chemicals. This unit—one of our own original design—permits isolation of certain fractions for experimental purposes which might otherwise be impossible to separate. . . . In the competition for tomorrow's customers, FRITZSCHE counts heavily upon planned research practically applied—today.

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INSPIRATION, sparked with imagination and touched by the magic of a perfume expert's skill —out of these ingredients has come this new, original and exotically beautiful fragrance, here presented for the very first time. We've named it SAMUM—Arabic for *desert winds*—a fragrance gentle and caressing but potentially powerful, compelling and irresistible—depending on the wearer's mood. Romantically, we imagine desert winds as coming from afar, laden with the scents of oriental bazaars, rare spices and incense. SAMUM, therefore, has a typically oriental note, warm and spicy, with a balsamy, resinous odor complex, and underlying floral modifications of carnation, orange flowers, jasmine and rose. Deeper, still, may be detected a beautiful, dry, woody note, while for topping and balance, airy-light citrus-aldehydes lend finish to this skilfully composed fragrance. For perfumes or toilet waters of elegance and refinement, you'll rarely encounter a more fitting fragrance than SAMUM. May we invite you to sample it?

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• • • • •

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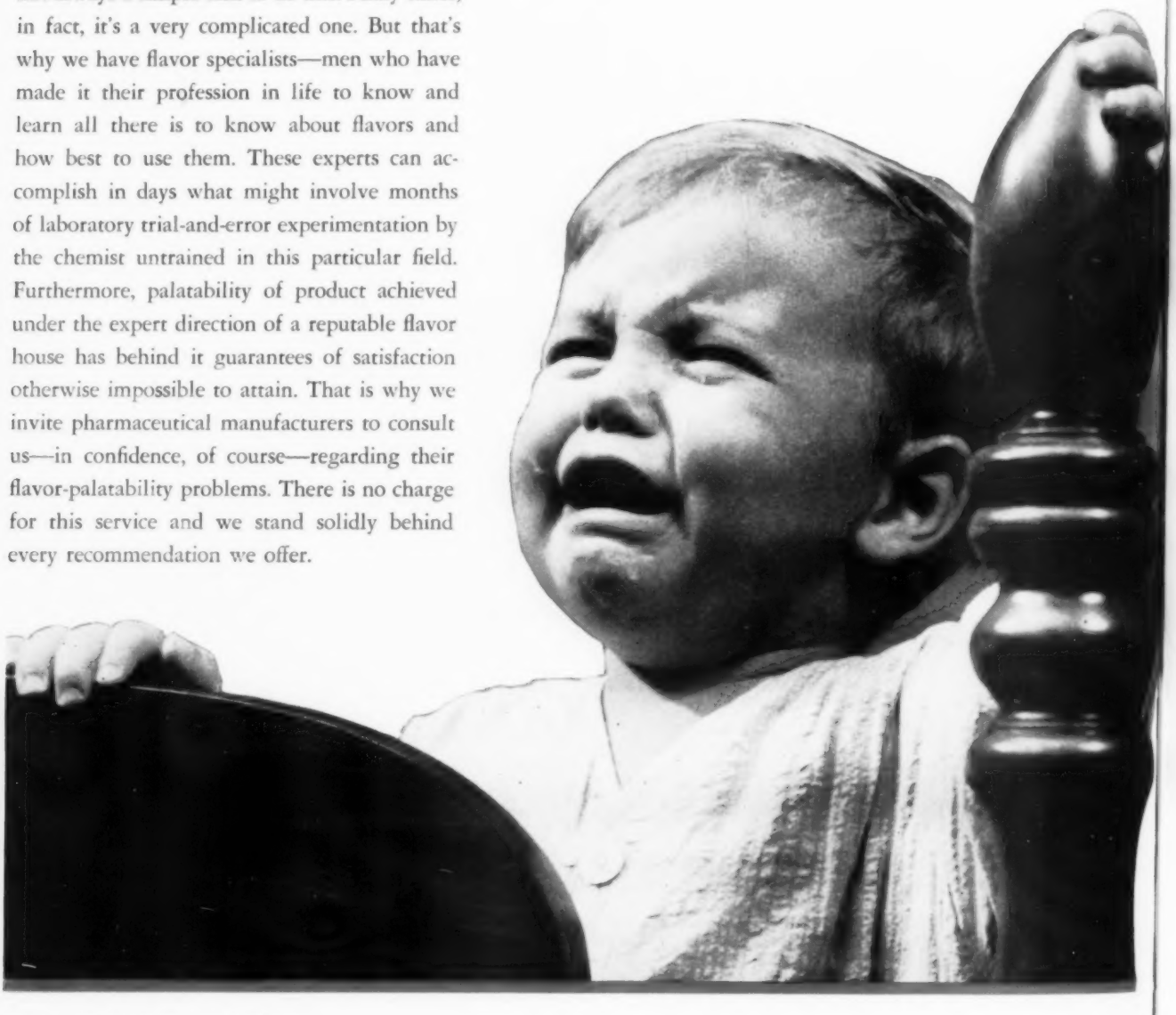

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sense of smell. Whether this difference in responses obtained is due to some unrecognized qualitative or quantitative individual variation in the sensory end organs of the buccal cavity and nasopharynx, or to central cerebral ramifications, or to varying psychologic factors, or to a combination of these, cannot be determined at this time. However, the difference in abilities among anosmic people to distinguish flavor would suggest the possibility, as yet unproved, that such persons might be trained to better identify and enjoy the flavor of food.

Physiological Odor Measurements

An *in vitro* preparation of nasal epithelium has been developed by L. M. Beidler and D Tucker (*Science* 122:76, 1955) in order to study its response to odors in a most direct manner. The opossum contains a large yellow olfactory area. A 2-cm_2 sheet of this tissue was carefully removed and placed in a flat lucite chamber that allowed one to dissect, under high magnification, the nerves from the richly innervated epithelium. The underside was supported by lucite except for a 1-cm_2 surface that could be exposed to either purified room air or one of a number of different odors.

Recordings were made from very small branches of nerves. Mechanical stimulation of the tissue resulted in very large spikes, whereas only small spikes were recorded in response to odors.

Odors were obtained by allowing an air stream to pass over the surface of 5 ml. of odorous liquid contained in a 50-ml erlenmeyer flask at the rate of 30 ml/min. A portion of this stream was allowed to diffuse into the air 1 cm below the surface of the epithelium.

Most preparations that contained a number of active fibers showed resting activity. Odors such as amyl acetate, benzene, cajeput, eucalyptus, leaf loves, spruce, Florida orange, asafetida, 2-furaldehyde, and freshly ground coffee beans stimulated a number of such preparations, and the nerve activity increased markedly.

The percentage increase in the number of spikes per second above resting activity of a given preparation as various odors were presented for 30 sec is as follows: amyl acetate, 110; cajeput, 42; spruce, 27; Florida orange, 21; leaf cloves, 0; musk xylol, 0. A 5-min rest in purified air was given after each odor stimulation. High concentrations of amyl acetate may have a detrimental effect.

A nerve bundle containing only a few active fibers reveals that one fiber may not respond to a given odor as well as another fiber, although this relationship may be reversed if a different odor is chosen.

Hexachlorophene has been accepted as an antiseptic and germicide in the soap and cosmetic industries. It reduces perspiration odors and combats skin infections caused by bacteria.

Hexachlorophene and Perfumes

Hexachlorophene is used in soap, deodorant preparations, hand creams and lotions, hair oils, hair dressings, baby lotions, talcum powders, foundation creams, shaving creams and aftershave lotions, etc.

Hexachlorophene is used in amounts of up to two per cent in soap and from 0.1 per cent to 0.5 per cent in cosmetic preparations.

In order to find out how hexachlorophene affects the odor and color of perfume materials and perfume compounds, samples of these substances were stored, protected from light, with 0.5 per cent of hexachlorophene by V Vasic (*Manuf. Chem.* 26:458, 1955). After one week the samples were examined, and after that each second week. The examinations were stopped after six months.

It was found that hexachlorophene does not affect the original olfactory note. However, it tends to dampen the odor of the perfume materials, which is due to physical attraction between the molecules with a resulting depression of the vapor pressure which produces a fixative phenomenon. This is more pronounced in perfume compounds where hexachlorophene acts as a fixative.

The color of most perfume materials was unaffected by hexachlorophene, but some discolored a little. In some cases the discoloration was hardly noticeable and was probably caused by traces of impurities.

Angola Lemongrass

West Indian Lemongrass, Cymbopogon citratus, D.C. Stapf, grows sporadically in the whole of Central Africa from the Indian to the Atlantic Oceans 10 degrees south to 15 degrees north according to A. M. Burger (*P. & E. O. R.* 46:185, 1955). The natives are well acquainted with lemongrass, they cultivate it for their huts and they prepare a tea from it which they drink for bladder inflammation or for colds and simple fevers. In Kisuaheli language which is spoken from East Africa to the Congo, lemongrass is called "madiani ya chai" (Teagrass) and "cha de principle" (Princes tea) by the negroes in Angola.

The West Indian lemongrass oil from Cymbopogon citratus Stapf generally possesses a higher resin content than the East Indian from Cymbopogon flexuosus. The former contains ocimene, an unsaturated hydrocarbon, which is especially inclined to resinification while the latter contains principally methylheptenone which is not so easily resinified. The West Indian lemongrass possesses a fresher smell since the methylheptenone in East Indian lemongrass imparts to this oil a hard grassy smell. Also West Indian lemongrass oil purified by bisulfite is cleaner to the taste since the methyl heptenone in East Indian oil always reacts with the busulfite.

Useful quantities of lemongrass oil are used for the preparation of citral for essences as well as for methyl ionone manufacture. This aromatic is in itself an indispensable basis for modern perfume types, while more so is an isomer characterized by a tenacious aroma of noblewood. In addition a new consumption which takes permanently increasing quantities from the market, is the manufacture of vitamin A.

Artemisia Oil

Artemisia annua L.—(Compositae) is of great frequency in Serbia. It is found everywhere in Belgrade and other towns which were damaged by air-raids during World War II.

Up till now this plant has not been studied. Owing to a lack and difficulty of importation of essential oils after the war, Y. Tucakov (*P. E. O. R.* 46:75, 1955) studied several aromatic plants, among which was *Artemisia annua*.

This plant was studied because of the great quantity of essential oil found in the plant before and during flowering.

The greatest quantity of oil was found in the tops of plants before flowering at the time when they have the most flower-buds and open flowers. After flowering the oil diminishes.

Distillation of the oil must be done on fresh plants as during desiccation and storage the loss is very great.

Hundreds of kilograms were distilled in both fresh and dried plant. The essential oil thus obtained was analyzed.

Part of the oil was sent to laboratories and factories for soap and cosmetics for experimental work. They gave a favorable opinion on the use of this oil pure and mixed with other oils.

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Skin Research

Cornified Epithelium Composition

The main component of the cornified epithelium of the human skin has been considered as a soft type of keratin, being insoluble in water, neutral salt solutions and organic solvents. In addition to keratin, water-soluble substances such as free amino acids, metabolic by-products, etc. and lipids were also identified. Further investigation of the components of the cornified epithelium appears of primary importance for better understanding of both protective function and mechanism of keratinization of epidermal tissue.

In the present study by A. G. Matoltsy and C. A. Balsamo (*J. Invest. Dermatol.* 25:71, 1955) isolated cornified epithelium of human plantar skin was broken down into its single cellular constituents by grinding. Chemical analyses of dry pulverized cornified epithelium showed that it contains 2.5 per cent ash, 15.6 to 16.6 per cent nitrogen, 0.08 per cent phosphorus, 0.6 to 0.8 per cent cystine, 1.6 per cent carbohydrates and seven to nine per cent ethanol extractable lipids. This preparation, in turn, was separated into a soluble fraction and a residue.

The soluble fraction was extracted from the pulverized cornified epithelium with 1/15 M phosphate buffer of pH 7.1; it constituted about 21 per cent of the cornified epithelium. About 40 per cent of the soluble fraction was dialyzable, whereas approximately 60 per cent was a non-dialyzable component. The latter was identified as a protein and referred to as "soluble epidermal keratin." The isoelectric point of soluble epidermal keratin as determined by electrophoresis was pH 4.1. Chemical analyses of dry soluble epidermal keratin revealed 15.7 per cent nitrogen, no phosphorus, 0.3 per cent cystine and 1.7 per cent carbohydrates. Tests for nucleic acids were negative.

The main components of the dialyzable part of soluble fraction were isolated by continuous zone electrophoresis and identified as free amino acids.

The residue of the cornified epithelium, remaining after extraction of the soluble fraction, could be rendered soluble in alkaline solutions having a pH around 12. Effective solubilization was obtained with 0.02 N sodium hydroxide, 0.02 M sodium sulfide and also with mixtures of 10 mM potassium cyanide or 2.5 mM thioglycolic acid or 50 per cent urea in 0.02 N sodium hydroxide. By the use of these solvents most of the residue of the cornified epithelium went into solution as a non-dialyzable substance of high molecular weight and maximally only about 20 per cent was lost as a low molecular weight dialyzable substance. The "epidermal keratine derivative" obtained by these solvents was precipitable upon acidification to pH 4.1. Precipitated epidermal keratin derivative did not dissolve in neutral or slightly alkaline buffers, but could be redissolved in 0.01 N sodium hydroxide and then transferred into weaker alkaline solutions or buffers of different pH.

Sebaceous Glands

Mitochondria are not difficult to demonstrate in sebaceous cells. Yet, they are only briefly described in the literature. Nicholas et al believed that mitochondria in sebaceous cells undergo a direct transformation into lipid droplets. In the sebaceous glands of the mouse the mitochondria are said to increase in number at the beginning of lipid storage, to decrease during sebaceous transformation, and to disappear in mature cells. In this paper by W. Montagna (*J. Invest. Dermatol.* 25: 117, 1955) mitochondria are studied in human sebaceous glands. They are intimately associated with the synthesis and storage of lipids but the lipid droplets do not seem to develop at the expense of mitochondria.

In the beginning of sebaceous transformation lipid granules first appear in the perinuclear cytoplasm, among the numerous mitochondria. Even though ring-shaped mitochondria are numerous, the lipid droplets do not form inside them. The substance inside the ring is cytoplasm and not a lipid. The manyfold increase in the volume brought about by the increase in stored lipids is not accompanied by a parallel decrease in the number of mitochondria. The number remains constant but the individual mitochondria are scattered over a larger volume. This is contrary to the conclusion of other authors who postulate that the number of mitochondria decreases during differentiation. Mitochondria remain recognizable and numerous until sebaceous cell breakdown begins. This indicates that no direct transformation of mitochondria into lipid droplets occurs. The lipid droplets, however, are first formed and develop in the midst of mitochondria. This suggests that mitochondria play a directive role in the synthesis of sebaceous lipids.

Eccrine Sweat Gland

Indirect evidence according to W. C. Lobitz, Jr., J. B. Holyoke and D. Brophy (*A. M. A. Arch. Dermatol.* 72: 229, 1955), of Dartmouth Medical School is accumulating that the human eccrine sweat duct is not merely a passive conduit through which sweat escapes to the surface of the skin.

Histochemical evidence indicates indirectly that the luminal or lining cells of the human eccrine sweat duct are quite metabolically active; for example:

They are rich in basophilic material and metachromasia that can be removed with ribonuclease.

They are heavily laden with disulfide groups.

They abound in succinic dehydrogenase activity.

They contain glycogen in moderate to large amounts.

Since the luminal cells do not have the ability to reproduce themselves, one may assume that any metabolic activity which can be demonstrated in them histochemically is not associated with mitotic activity, but is present for the normal functioning of the mature cell.

Active sweating is associated with either a decrease or a total depletion of glycogen from the cells of human eccrine sweat ducts.

This, then, adds more indirect evidence that the eccrine sweat duct plays an active role in sweat gland function.

Percutaneous Fluorohydrocortisone Absorption

Percutaneous absorption of fludrocortisone (9α-fluorohydrocortisone) may occur following topical application of the drug according to C. S. Livingood, J. F. Hildebrand, J. S. Key and R. W. Smith, Jr (*A. M. A. Arch. Dermatol.* 72:313, 1955); if the quantity absorbed is sufficient, sodium retention may be a complication of therapy.

Absorption is facilitated when the medicament is applied in a lotion vehicle rather than an ointment base.

For short-term therapy, a probable "safe" daily topical dose of fludrocortisone is 2-6 mg. in lotion form, and 5-12 mg. in an ointment base; in some patients, with prolonged daily treatment, even these quantities may cause significant sodium retention.

In general, it seems preferable to avoid the use of fludrocortisone ointment and lotion in patients who have hypertension, toxemia of pregnancy, congestive heart failure, and nephritis.

Mechanical Properties of Hair

The physical properties of hair may be expressed by different indices, each of which relates to one of its measurable characteristics: length, waviness, luster, color; section, diameter, wettability, porosity, absorption, swelling, softening, elasticity. These indices are not independent of one another and they represent the fundamental properties of the hair. Being variable in time, they are also modified by the different attacks to which they are subjected by environment.

Though color and lustre are important from the esthetic point of view, it is it is difficult to measure them, but this is not a very important matter for the general investigation with which this meeting is concerned.

Measurement of length is simple. That of the diameter can be carried out under a microscope that is fitted with a micrometer eyepiece, or else by projecting the shadow of the hair on to a graduated scale. As regards measurement of the section, this calls for a cross-section of the hair.

By measuring the variation in weight of a determined mass of hair plunged into the liquid being experimented with, absorption is measured. Other indirect measurements may likewise be employed.

Measurements of diameter have yielded figures varying from 70 to107 microns. As the most frequent diameter was in the region of 80 microns, all measurements of resistance were referred to that diameter, to obtain comparative results.

Contrary to what might be believed, the capacity for absorbing water is very slight and is in the region of 1.5 per cent. At 50° C. this absorption does not exceed four per cent, and it reaches seven per cent in an alkaline medium.

The breaking load represents the mean of the figures found on ten hairs, and varies, for dry hair, from 80 to 130 grammes. The maximum elongation at the breaking limit attained 35 to 45 per cent.

The elasticity of hair is measured with very slight loads of 15 and 20, i.e. within the limits of elastic elongation.

The results only possess comparative value and all the tests were conducted *in vitro*. They therefore relate solely to direct action of products on the fibre. These approximate results, should be interpreted with caution, for the hair is a product of living matter, possessing great variability, not only between individuals, but also in the same individual according to the part from which it was removed. Nevertheless, measurements of diameter, load, breaking and direct recording of the elasticity curves have thus permitted of studying the behavior of hair plunged into different media.—*S.P.C.* 28:755, 1955.

Sulfhydryl Groups in Epidermis

Sulfhydryl (-SH) groups and disulfide (-S-S-) linkages were estimated by P. Flesch and A. Satanove (*Brit. J. Dermatol.* 67:343, 1955) in the cellular and keratinous components of pulverized and sifted human epidermis. These values were compared with those obtained in epidermal homogenates.

The -SH groups in pulverized and sifted specimens represent only a fraction of the "total" (-SH + -S-S-) sulfur and are present in both epidermal components. The cellular layer contains higher amounts than the keratinous layer.

Disulfide concentrations are only slightly higher in the keratinous fraction than in the cellular fraction.

These findings support the theory that a -S-S- containing keratin precursor occurs in the living cells of the Malpighian layer. There is no evidence to indicate that the majority of the -S-S- bridges in the horny layer originate from the oxidation of the -SH groups of the Malpighian layer.

Skin Absorption of Sulfur

Sulfate was detected by G. Stuttgen and H. Wust (*Haularzt.* 6:172, 1955) in the urine two hours after treatment of the human skin with a suspension of S^{35} in eucerin. The resorption rate is individually different but is elevated by a pretreatment with benzyl nicotinate. Experiments on rat skin showed that sulfur can also be resorbed as sulfide and sulfate.

Hyaluronidase and Cutaneous Permeability

Studies were made by H. Sheinaus, J. E. Christian and G. J. Sperandio (*J. Am. Pharm. Assoc. Sci. Ed.* 44:483, 1955) to determine if hyaluronidase, when incorporated into ointments, affected the penetration of medication contained in ointments applied to the skin. Four substances were tested: sulfanilamide, sodium sulfanilamide, sodium iodide, and sodium chloride. Three different ointment bases were used: an oleaginous base, an absorption base, and a washable emulsion type base. The ointments were applied to the intact skin of guinea pigs, and a technique using radioactive isotopes reported for determining the extent of penetration of the labeled medicaments. It was found that the substances studied showed a limited degree of penetration into the skin from the bases used, but except in the case of sodium iodide the penetration was not appreciably affected by hyaluronidase.

Epidermal Composition

A. Dupre (*Parfum. mod.* 47:1, 1955) reports that histochemical studies reveal amounts of glycogen in the epidermis. Lipides have been demonstrated in the intercellular spaces in the same places that mucopolysaccharides have been noted. The nature and role of the lipides is obscure, however, they may be involved in a complex with the polysaccharide which could act at times for nutrition and cohesion of the epidermis cells.

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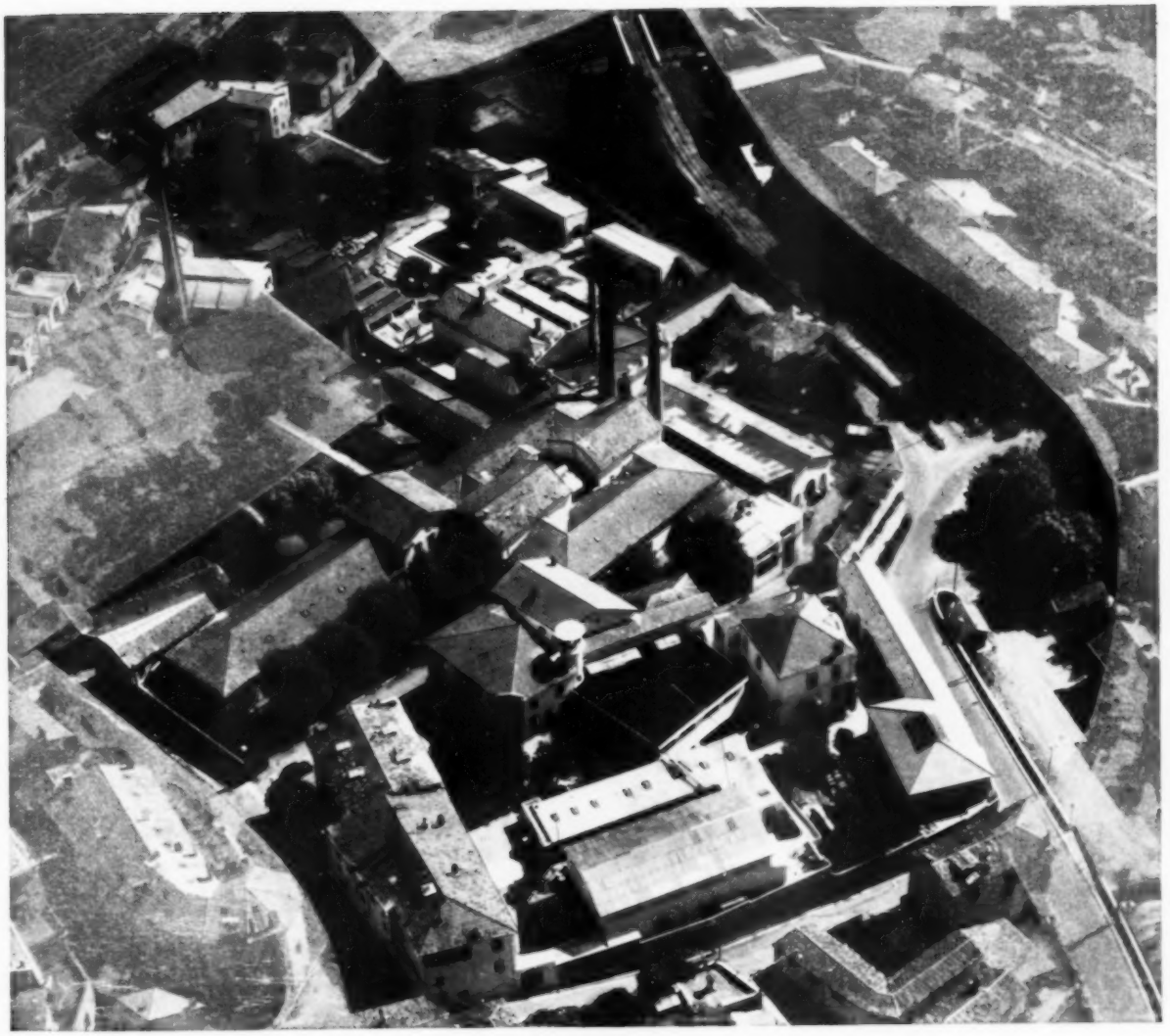

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Industry's Books...

The Extra Pharmacopoeia (Martindale), *Twenty-third Edition, Volume II, Published by direction of the Council of the Pharmaceutical Society of Great Britain, The Pharmaceutical Press, London, 1501 pp., (1955), cloth,* **12. 17s. 6d.** *(postage 1/6d).*

The new Volume II, of this widely known work, has been completely revised, several new sections added, and many existing sections have been rearranged in order to serve their purpose more effectively. The objective of this work is identical with that which inspired the earlier editions, namely, the production of a comprehensive reference book in which accurate and adequate information on all drugs can be found quickly.

International Pharmacopoeia, *First Ed., Volume II, 350 pp., (1955), World Health Organization, Geneva, Cloth,* **$6.75.**

The publication of volume II of the International Pharmacopoeia successfully completes a task begun in 1937 under the auspices of the League of Nations Health Organization and carried on since 1947 by the World Health Organization, through the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations, and of other specialists. This volume consists of 217 monographs, 26 appendices, and 1 annex. It contains, among others, specifications for some of the pharmaceutical preparations introduced into therapeutics during the last few years (e.g., penicillin, chloramphenicol, dihydrostreptomycin, oxytetracycline) and for some synthetic substances of growing importance. It also contains monographs on compressed tablets, sterile injections, and tinctures of substances included in volume I.

Instruments for Measurement and Control, *by Werner G. Holzbock, Development Engineer, Askania Regulator Co., 371 pp., (1955), Reinhold Publishing Corp., New York, cloth,* **$10.**

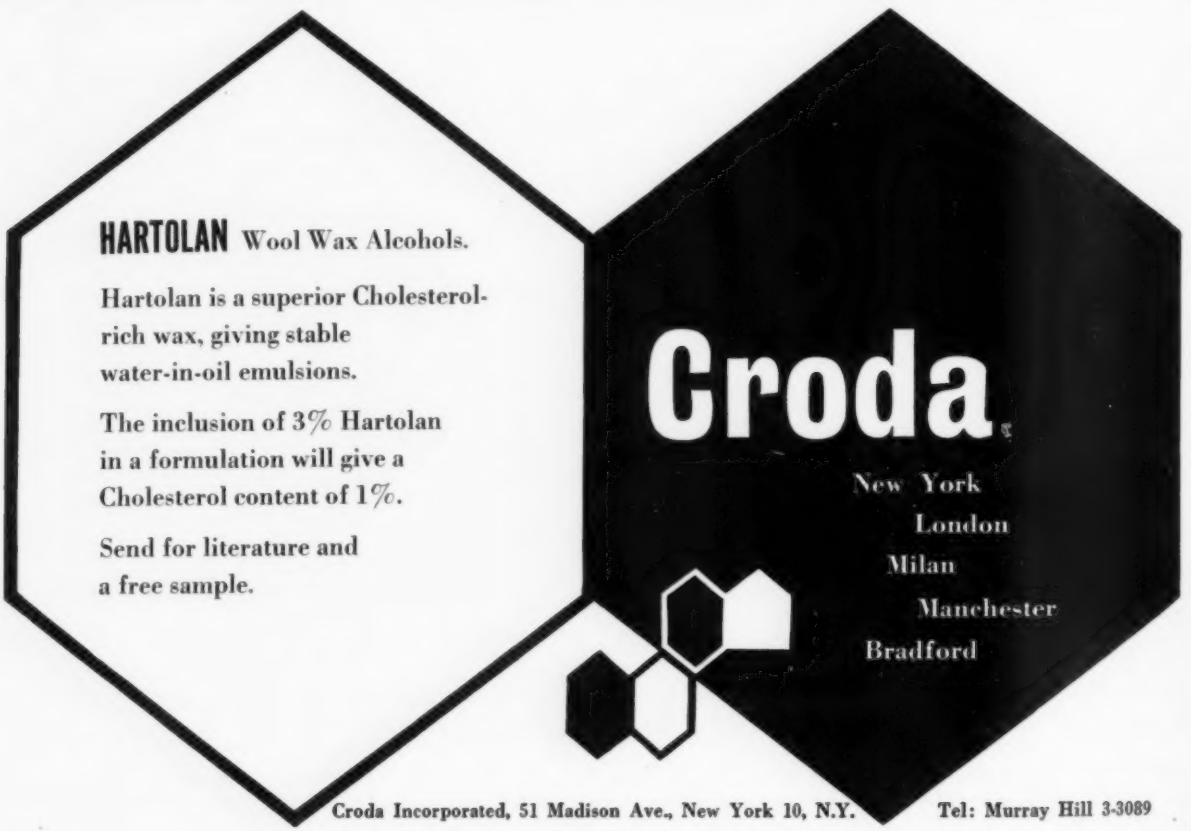
This is the first book to describe and illustrate all the most recent devices for measuring and controlling temperature, moisture, pressure, flow, uniformity, etc. In non-mathematical language, the book discusses the design, construction and operation of instruments, shows how various instruments compare with each other, and points out the factors to consider in choosing the proper instrument for a particular job.

The Complete Book of First Aid, *by John Henderson, M.D., F.A.C.S., Medical Director, Johnson & Johnson, 341 pp., pocket size, Bantam Books, New York, (1955), paper,* **50c.**

This new and complete manual of practical First Aid fills a need for a comprehensive book of emergency care. It is designed to be used for all members of the family—children and adults alike.

The National Formulary, *Tenth Edition (1955), Published by the American Pharmaceutical Association, Washington, Distributed by J. B. Lippincott Co., Phila., 867 pp., cloth,* **$9.00.**

The tenth edition of the National Formulary is the fourth to be published according to a plan adopted by the Council of the American Pharmaceutical Association in 1938 for the issuance of revisions at five-year intervals. Com-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pletely revised, this new edition carries 733 monographs of specifications for drugs and preparations. About 259 monographs are new to National Formulary X.

Modern Apparatus for Sterilization, *by J. H. Bowie, M.D., Ch.B., Senior Lecturer, Department of Bacteriology, University of Edinburgh and Bacteriologist to Edinburgh Royal Infirmary, 24 pp. phamphlet, The Pharmaceutical Press, London,* **2s 6d.**

This is a reprint of an address given to an Evening Meeting of the Pharmaceutical Society of Great Britain in Edinburgh on February 16, 1955.

The Year Book of Drug Therapy (1954-1955 Year Book Series), *Edited by Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry, 592 pp., The Year Book Publishers, Inc., Chicago, Cloth,* **$6.**

The articles abstracted herein are taken from journals received between August 1953 and August 1954. Several interesting things have developed recently in the field of cardiovascular drug therapy. Other new developments are in the field of hypersensitivity, tuberculosis, oral treatment of pernicious anemia, the antimalarials, etc. Many new drugs are discussed and evaluated.

Tungsten, Its History, Geology, Ore-Dressing, Metallurgy, Chemistry, Analysis, Applications, and Economics, *by K. C. Li, M.E., A.R.S.M., Chairman Wah Chang Corp., and Chung Yu Wang, University Medallist, Columbia University, American Chemical Society Monograph No. 94, Third Ed., 506 pp., Reinhold Publishing Corp., New York, cloth,* **$14.00.**

Every aspect of the history, geology, ore dressing, metallurgy, chemistry, analysis, industrial applications, substitutes and economics of tungsten is covered in great detail in this work.

Problems and Control of Air Pollution, *Edited by Frederick S. Mallette, Executive Secretary Committee on Air-Pollution Controls the American Society of Mechanical Engineers, 272 pp., (1955), Reinhold Publishing Corp., New York, cloth,* **$7.50.**

Presented in this book are the proceedings of the First International Congress on Air-Pollution held in March, 1955 under the sponsorship of The American Society of Mechanical Engineers. The authors whose papers appear in this work are among the world's foremost authorities in the field of air-pollution control.

Plastics for Corrosion-Resistant Applications, *by Raymond B. Seymour, President, Corrosion Resistant Plastics Div., Loven Chemical of California, and Robert H. Steiner, Naugatuck Chemical Co., 423 pp., (1955), Reinhold Publishing Corp, New York, cloth,* **$7.50.**

Compiled from the author's extensive experience and research in the plastics field, this book supplies engineers with the background information necessary in selecting the proper plastic for construction in corrosive atmospheres.

Official Methods of Analysis of the Association of Official Agricultural Chemists, *William Horwitz, Chairman and Editor, Eighth Ed., 1955, 1008 pp., Published by the Association of official Agricultural Chemists, Washington, D. C., cloth,* **$12.**

The methods in this Eighth Edition are those sponsored by the Association up to and including those adopted at its 1954 meeting.

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Dentifrice Abrasive: *We would appreciate your advising what substitutes for calcium carbonate may be used in the manufacture of tooth pastes.* ARGENTINA.

Special grades of dicalcium phosphate may be used as the abrasive in dentifrices, the requirements being small particle size and absolute freedom from grit. Calcium sulfate and tricalcium phosphate, with the same particle size and grit specifications as for precipitated chalk and dicalcium phosphate may also be used. Harder materials, even when of small particle size, may have too abrasive an action of tooth enamel and should be avoided.

Anti-Dandruff Preparation: *We are formulating a scalp lotion and dressing for the hair and could you tell us where we might obtain selenium sul.de. Do you know of any other germicidal agents that would be less toxic and het be effective against pityrosporum ovale types.* ARIZONA.

Selenium sulfide is reported to be presently in very short supply but you may be able to obtain supplies sufficient for experimental use from your laboratory supply house. As you know, selenium sulfide is a toxic chemical, although it is apparently safe enough wne used carefully in a shampoo mixture, and it cannot be used unless adequate data as to safety are submitted for FDA approval. In the July issue of this

magazine, page 109, we reported on the use of an organic sulfur compound along with a cationic surfactant and also the use of sulfacetamide for controlling seborrheic dermatitis. Both of these preparations are mre easily obtainable than is selenium disulfide and their toxicity is low.

Hydrogen Ion Determination: *We are in trouble and call upon you for help in this matter. We would like to be able to determine the p H values of creams by means of a Beckman meter that we possess. Can you tell us some of the problems that we might encounter and how to make trustworthy determinations?*
BRAZIL.

First off, you must become familiar with the adjustment of your instrument, following the relatively simple directions for adjusting to null point and then setting it by means of a standard buffer solution. The buffer solution must then be washed off of the electrodes so that a false reading will not be obtained. You must determine the pH value of a number of dilute aqueous salt (or other buffer) solutions to make sure that you are familiar with the instrument and, above all, that the instrument is in good working order. If you cannot get good readings under these circumstances you may have trouble with the batteries and/or the electrodes and service will be required. For creams themselves, water-in-oil creams will not give pH values with any meaning because the water is present as a discontinuous phase. For that matter, oil-in-water creams with a high oil content may give you poor results because the oil may block the surface of the glass electrode. Another point to be considered is that acid creams in which the emulsifying agent is cation-active may give erratic and untrustworthy readings. The cationic-active compound adheres to the surface of the glass electrode and poisons it, so that the electrode must be soaked in water before it is fit for use again. For vanishing-type creams and those that contain relatively small amounts of oil, the cream should be packed into the cup and around the electrode to assure intimate contact and reasonable absence of bubbles. If a good reading cannot be obtained in this way, the cream should be diluted with enough distilled water to make it semi-fluid and thus assure intimate contact with the electrode. The reading thus obtained will not be too far from the true value.

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Modulan is extremely hydrophobic – does not form greasy emulsions and is practically odorless. Because of its outstanding compatibility with oil-in-water emulsions and with soaps and shampoos, Modulan is particularly recommended for use in creams, lotions, baby products, hair preparations, make-up, and ointments.

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Trade Literature

Gear Motors

Merkle-Korff Gear Co., 213 N. Morgan Street, Chicago 7, has issued a four-page folder on its unique line of geared motors.

Homer Magnetic Plates

The Homer Manufacturing Co., Dept. 67, Lima, Ohio, has issued a new illustrated bulletin (PL-250) describing Homer Permanent Magnetic Plates which are non-electric magnetic separators used in industry.

Palatone Bulletins

The Dow Chemical Company, Midland, Mich., has available seven technical bulletins on Palatone, a coumarin replacement chemical made entirely within the Dow organization. Bulletins offered are: TBP-1-Palatone—General Flavor Information; TBP-2-Palatone as Coumarin Replacement in Coumarin-Vanillin Blends; TBP-3-Palatone and Cyclotene Used to Create a Tonka Bean Effect; TBP-4-Palatone in Chocolate Products; TBP-5-Palatone in Extract Work — General Discussion; TBP - 6 - Palatone in Vanilla Flavors for Ice Cream Work; TBP-7-Palatone in Vanilla Extracts for Bakery Products.

Malmstrom Bulletin on Lanolin

Malstrom Chemical Corp., 259 Parkhurst St., Newark 5, N. J., has issued a four-page bulletin describing a new refined lanolin oil called Lantrel. The product is a non-tacky, odorless, amber-colored oil found to be highly soluble and compatible over a wide range of materials. It is said to retain all beneficial properties of lanolin while eliminating many of lanolin's disadvantages.

Ansul Bulletins

Ansul Chemical Company, Marinette, Wis., has published two chemical product bulletins. One analyzes the properties of four new ethers (E-121, 141, 161, and 181), described as ideal commercial solvents and reaction media of high purity, chemical inertness, and high solubility. The other analyzes dimethoxy benzene, a pleasant smelling solid crystalline diether used in sun screening and as a perfume ingredient in soap; and hydroxy anisolex.

Emulsol Product List

Emulsol Chemical Corporation, 59 E. Madison Street, Chicago, has available a revised product list describing many of the Emulsol surface active agents used in various industries.

Baker Castor Oil Booklet

The Baker Castor Oil Company, 120 Broadway, New York 15, has published a new 16-page catalog and product guide of castor oils and castor oil derivatives. Much information is given on refined and oxidized castor oils, gelled and dehydrated castor oils, castor oil fatty acids and esters, hydrogenated castor oil, castor oil metallic soaps, and specialties.

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* *Chemical Senses, page 1, Moncrief—lists senses as follows: "sight, hearing, touch, taste, smell." Note smell is listed Fifth.*

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RESEARCH LOOKS AT ADVERTISING

(*Continued from page 628*)

Too many companies are followers. They spend more time watching competition than they do in trying to develop something new.

Another important program is product improvement. Many items are not as good as they might be, once they have reached the market. Perhaps they could be reduced in cost. Maybe a different dosage form would make them better. Such ideas as these can be developed in the promotion departments and they can help the business materially, as you can readily see.

We have in our organization what we call a New Formulations Group. It consists of marketing men and research people. They meet once a month and discuss ways and means of improving our products. Many good things have come from this, but only because the promotion people are there. They know what should be done and it is our job to know how it might be done.

It might be interesting to review what you can get in the way of help from the right kind of research department. If they are on their toes they know what's new in medicine, and they can help you slant your story with the latest angles in a given therapy. You should especially maintain contact with the physicians in research who attend a lot of big meetings. They should know what the latest trend is. Some specialties are dominated by a few dozen top men. The research organization should know something about their most recent thinking.

Probably the cooperation between research and advertising will never be as good as it should. But let's not perpetuate old mistakes. Instead of saying the same old thing about a product, check it with Research and be sure there is not a new and better way to say it. Perhaps now there's a new aspect to be emphasized. Another important thing to remember is that the number of points to be established about the superiority of a product is limited; your audience will do well to remember one or two things about it. Often we use too many claims which confuse the issue. It is always best to emphasize one or two important advantages.

I believe also that the constant exposure of promotional people to research helps maintain and develop their technical point of view. We feel that it is our obligation to keep the rest of the business abreast of what we are contemplating. Any new field could well represent a change of pace.

SUGAR-FREE TABLET COATING

(*Continued from page 621*)

tablets gave no indication of any absorption of the amaranth dye, indicating that the coating had completely covered the tablets.

Disintegration tests were run on two batches of uncoated and coated tablets, using six tablets each time, following the procedure outlined in the U.S.P. XIV. The media that the tablets were allowed to dissolve in was an artificial gastric juice, U.S.P. XV, consisting of sodium chloride 2 Gm., pepsin 3.2 Gm., hydrochloric acid 2.5 ml., and distilled water q.s. to 1000 ml. The uncoated tablets were found to dissolve completely within fourteen minutes and thirty-seven seconds to fifteen minutes. Those tablets which had been coated completely dissolved within fifteen minutes and thirty seconds to fifteen minutes and forty seconds.

Shelf life tests were conducted on the coated tablets. The tablets were placed in closed vials, and two placed at room temperature, two in an oven at 112° F., two in a refrigerator at 12° F., one in a desiccator containing water to simulate 100 per cent humidity, and some in an open vial, also placed in the desiccator. Those tablets placed at room temperature, in the oven, the refrigerator, and the closed vial in the desiccator were unaffected after two weeks. Those tablets placed in the open vial, in the desiccator, had their coating softened, but when the tablets were removed from the desiccator and kept at room temperature for fifteen minutes, they returned to their original hardness.

The tablets coated by this procedure were found to have several major advantages over the sugar coated tablets. First, the time required to coat the tablets by this method was only eleven to thirteen hours, as compared to twenty hours for a sugar-coating procedure. Secondly, there was no dusting powder, smoothing coat, or finishing coat required in this procedure. Thirdly, the tablets did not chip as readily as those prepared by the sugar-coating procedure, due mainly to the fact that the hardness of the tablets was increased from 4 to 6 Kg., with no effect on the disintegration time. Lastly, because of the nature of the coating material no wax solution was required, yet the tablets had a highly polished finish.

REFERENCES

1. Clarkson, R.: Tablet Coating, Drug and Cosmetic Industry, New York 1, N. Y. (1951).
2. Consolazio, W. V.: U. S. Patent 2,478,984, Chemical Abstracts, 43, 8619 (1949).
3. Whitehouse, R. C.: Pharmaceutical Journal, 172, 85, (1954).
4. Carroll, R. H. and Spadaro, D. J.: U. S. Patent 2,685,553, Chemical Abstracts, 48, 12381a, (1954).
5. Doerr, D. W., Serles, E. H., and Deardorff, D. L.: J.A.Ph.A., 43, 433, (1954).
6. Gans, E. H. and Chavkin, L.: J.A.Ph.A. 43, 483, (1954).
7. Anon.: Tile and Till, 41, 4, (1955) (February).

SELECTING AND TRAINING PACKAGING PERSONNEL

(Continued from page 635)

production lines to further her training. This also makes it possible to have the evaluation of several supervisors in determining whether a worker will pass the probation period. Where incentive systems are used, the data on rates on various jobs provides an objective measure of skill.

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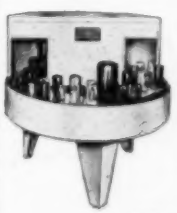

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* *The Dispensatory of the United States of America, 1950 Edition*

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Between the packer and the supervisor there are many grades and classifications. Among female workers this includes checkers, inspectors, machine operators. Advancement of the packer in most plants follows seniority when all other factors are equal. Helpful in determining and evaluating the important factors other than seniority are the semi-annual performance ratings that cover pertinent points such as dependability, initiative, attitude and productivity. To cover our subject today, we will concentrate on three major levels—the packer or finisher, which we have just discussed, the set-up mechanic and the supervisor.

The set-up man is a key man on a packaging line. He is the mechanic who keeps the machines running, takes care of minor repairs and changeover. Good men are difficult to find, time consuming to train and hard to keep.

Qualifications for a set-up mechanic's job compare with those required of a straight mechanic. It is necessary for these men to make quick diagnoses and corrections of machine troubles as delays mean appreciable labor and production loss. Some mechanics might be unable to work under the pressures that are the every-day lot of a set-up man. Set-up men must be able to work with people, both men and women. Good team work between women machine operators and set-up mechanics is essential for a smooth running operation.

In many plants set-up jobs are posted and men bidding are considered on basis of seniority deciding the candidate if all else is equal. It is important that qualifications other than seniority are properly evaluated. Some companies are using tests to assist in determining mechanical aptitude and find them helpful. Interviews with candidates often uncover mechenical aptitude. A work history including mechanical work, a home shop and night courses in mechanics helps point out the better prospect. Men having had training in Armed Services in aeronautical mechanics have been found to have a sound and useful training. Men working in packing department jobs such as stockhandler, supply man, often show interest in machines that indicates a potential set-up ability. One company requires set-up applicant to have one year's or more experience as a maintenance mechanic.

Most companies have found it good practice to have several levels of set-up men, thus allowing a training of the men and a further sorting on the job of those who can do the simple duties such as cleaning and adjusting of simple machines such as table gummers.

Formal training programs are used in many plants to train set-up men. These vary from courses given on the job or evenings, to sponsoring outside courses in mechanics, machine shop practices, and others. A number of companies have made up a training manual covering the various machines in use which form the basis for training courses. Tests are used to check the proper acquisition of knowledge. As with packers and finishers, beginners are usually assigned to work with

one of the more competent set-up men having special aptitude for teaching. Rotation on various jobs helps develop and train men and in most plants, some system of rotation is used. Training is a constant activity as new machines are added to a line and changes in packing materials develop.

Some machine suppliers furnish manuals that are of value in training. All companies using machines would appreciate more effort being expended in this direction by the supplier. This would be of value to the supplier as well as user as in better training of set-up mechanics, the usefulness and therefore the sale of the machine, would increase.

It is useful in training set-up men to have them work with service men sent out by the machine supplier. Some companies send set-up men to machine manufacturers' plants to be trained in operation of new machines. In areas where there is a concentration of industry, it might be desirable to stimulate trade schools to develop courses to train set-up men.

In companies employing large numbers of set-up men, it has been found desirable to have monthly meetings to discuss machine problems. These are of particular value in passing on new ideas, discussing new equipment, working out improved maintenance methods, etc.

The last classification of packaging line worker whose selection and training we will discuss, is the supervisor. Degree of supervision varies in different plants and types of operations. What we call a line supervisor at Lederle may be called a senior operator, or line leader, in another plant. Men may be given this same classification in some plants and in others, only women. In a non-union plant, a line leader may be a working supervisor, where in a union plant, care is taken to have the supervisor do work of the type she supervises only as a step in the teaching of new workers or in an unusual emergency.

High speed lines, where changes are infrequent, do not require the same degree of supervision as slow hand or semi-automatic lines where runs are small and change-overs frequent.

At Lederle we have a union. Some of our runs are short and changeovers frequent. We have found it practical to have women line supervisors who are members of management. They supervise from 10 to 20 or more people on a single line that may be either entirely a hand assembly, a high speed mechanical line or some degree between. As our women supervisors frequently leave to get married to have families, we have had a problem of selecting and training replacements and have recently begun a program that it may be of interest to describe to you.

We have selected supervisors entirely from within our plant. Our supervisors are asked to nominate workers that they feel might qualify for this job. Those nominated are screened by the department head by checking their folder in the personnel department where their record prior to working for the company, their educational background and in plant work

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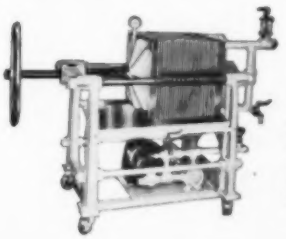

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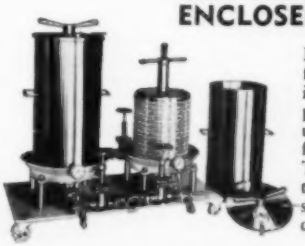

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record, are examined. Record of general condition of health is checked. Nominees not having a minimum of a high school education are eliminated. Any indication from the record that an employee would not be able to get along with people would be a prime factor in weeding out those nominated. It is generally agreed by all executives that this qualification is of paramount importance.

For those surviving the initial screening, we list in order of years of service, except where unusual qualifications justifies exception. We then examine these people more closely as the need for supervisors arises. Our need, incidentally, we try to anticipate so that we can carefully select and train these supervisors before giving them the complete responsibility and before pressures of replacement force us into foregoing the desirable training.

The more careful examination of the nominees starts with an interview where the woman is asked if she is interested in becoming an applicant. Up to this point those who have been nominated do not know they are being considered. Those desiring to be considered are then interviewed further using a check list of qualifications. This list is as follows:

Qualities

Appearance
Ambition, family backing
Initiative, self-confidence
Learning and problem-solving ability
Emotional maturity
Persuasiveness, enthusiasm, tact
Ability to teach
Language facility
Cooperativeness, respect for authority
Friendliness and willingness to help people with problems
Mechanical comprehension
Job knowledge

Poor rating in one or more of these qualifications may be justification for elimination of the applicant. While at present we measure these qualifications by interview, we feel that there are testing aids that are being used to advantage in some plants that may be used by us at a future date.

After selection, we have set up a formal one-week training program developed and put on by the training section of our personnel department. This course covers:

Company policies—Information Bulletins
Labor agreement
Staff functions and services
Labor relations
Human relations
Leadership
Basic economics
Safety
Accounting procedures
Job instruction

Work simplification—methods
Quality control
Production control
Tour of plant

A candidate may be eliminated during this course if she shows a lack of interest, inability to learn or a poor attitude.

On completion of the formal course, an on-the-job training is begun, this basically being the assigning of new supervisors to experienced supervisors for a time before giving them the direct responsibility. Some companies sponsor formal courses of both specialized and general nature, even aiding supervisors in getting degrees. Rotation in assignment is used to assist the training.

After the completion of the on-the-job training, the supervisors are given regular assignments. About once a month a meeting is held by the training group of the Personnel Department of all supervisors, in small groups, to discuss new company policies and procedures. We also have a department meeting at similar intervals to keep supervisors informed of new procedures, problems, etc. Thus, training continues as a permanent part of the supervisor's daily work.

In conclusion, it is generally recognized that the increased cost of labor and the increasing complexity of the packaging line requires that great care be taken to select people of the greatest potential and then to properly train them. Testing is of proven aid in selecting the right worker. Careful attention to various abilities and limitations in screening through individual records as well as by interview, is of great value. When hired, various types of programs are being used to better and more quickly train employees. The success of the program of selecting and training of workers can well make the difference between profit and loss in a competitive industry.

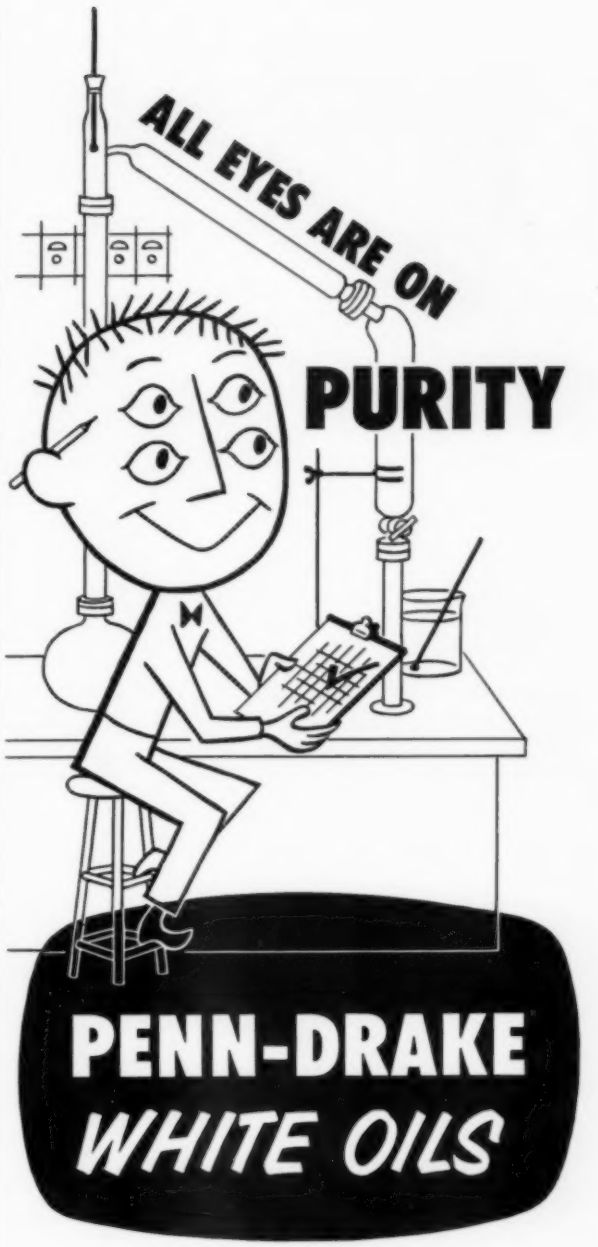
Based on the importance of the subject, we should expect in the years to come that the psychologist will provide us with more and better tests to aid in selection of workers of all levels. We must be sure to properly describe what kind of person we require to assist the testing expert in setting his targets. Our ability to evaluate people by interviews should improve. Use of prepared manuals, demonstrations, visual aids and conferences will better train our workers. Much has been done but much more can be done.

DEFENDING DRUG PRICES

(Continued from page 613)

borne by the products that are successful.

But the manufacturers must not allow the other members of the medical care team to defend themselves by letting the public think that the manufacturers are extortionists. The doctors and the druggists should be impressed with the fact that it is their duty to explain the true facts to such of their patients and



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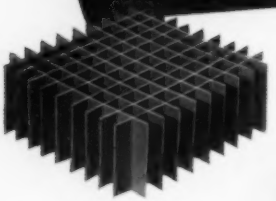

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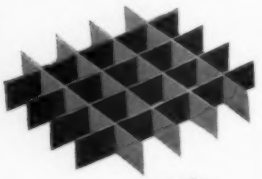

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customers who complain about prescription drug prices.

The doctor should be impressed with the facts of life as they exist for him today. He should be made to realize that if it were not for the new drugs which he has at hand today he could not possibly have the time to see and treat anywhere near as many patients as he does. He should be made to realize that it is because of these drugs that he is able to effect as many recoveries and cures as he does in relatively short time in cases which formerly would have consumed much more of his and the patient's time. He should be made to realize that it is greatly to his disadvantage for him to make disparaging remarks to patients about the prices at which manufacturers sell their products. He should be convinced that it raises his stature and his dignity and creates in the patient a greater respect for his intelligence when he attempts to tell the patient the true reasons why the charge for certain drugs are relatively high, and also that these drugs are extremely cheap in view of what they accomplish. Perhaps the younger doctors who have grown up with a great many of these so-called "wonder" drugs at hand, are not so well acquainted with what it would be to practice medicine without them. But they too must be taught the facts of life.

The druggist also must be given a similar education regarding these drugs and their importance to him. He must be told—although he already knows it very well—that his prescription business today is the heart and soul of his business because of these new potent pharmaceutical agents, most of which can be dispensed only on prescription. He must be told that it is in his interest to keep the manufacturers in a healthy economic state so that they can continue to spend large sums on research and thereby develop still more products which will increase further the business of his prescription department. He must be told that as the distribution picture in this country continues to change as the result of the increased population and other changing conditions in this country, it is imperative that he defend to the utmost the one department of his business that must always remain a monopoly of the registered pharmacist. He must also be convinced that it will increase his stature and dignity if he will take the time to tell customers who complain about high prices just why these prices must be charged by the manufacturers, and why this method of development of new drugs is of benefit to everyone.

It is not difficult for anyone to defend the prices charged for drugs today if he will only give it a little thought, and if he will take the time to do it. The difficulty is that most doctors and druggists give very little thought to the problem and take the easy way out—blame the manufacturers. Therefore, it would seem that it is up to the manufacturers to undertake in some way to get the true picture before the public. This might be accomplished by direct actions by in-

dividual manufacturers or groups of manufacturers, and in addition by undertaking a plan to educate doctors and druggists to their clear duty in the situation that confronts all members of the medical care team.

THE DRUG DISTRIBUTION FIGHT

(Continued from page 625)

realize very well that the backbone of their distribution is the retail druggist. It is for this reason that they spend large sums of money each year on such things as the Foundation for Pharmaceutical Education, the Bureau of Education on Fair Trade, and all sorts of activities designed to promote the welfare of the retail druggist. But these manufacturers also realize that their need of the druggist and his cooperation is no reason why their products should not be distributed through other retail channels which place their products closer to consumers in many instances. They see no reason why such of their preparations, the use of which is well known to the average persons who buys them, and which are perfectly harmless when used with ordinary common sense, should not be freely available for purchase by those who desire them.

The struggle over restrictive sales of drug products is nothing new. Neither is it something that will be settled quickly or suddenly. For the most part it is a state matter and therefore it cannot be settled at the federal level. Each of the forty-eight states of the nation will have to take action and doubtless this action will be taken piecemeal in each state both by the state boards of pharmacy and by the state legislatures. And it can be anticipated that the state boards of pharmacy will always lag behind the action of the legislatures if the legislatures liberalize the distribution provisions of the state pharmacy acts. Much time and money will be spent in the courts and in the legislative courts of the nation in the fight between manufacturers and organized retail pharmacy for as many years as we care to contemplate.

PATENT THOUGHTS AND TRENDS

(Continued from page 653)

RECENT PATENTS

2,715,634—**Merck—Biocytin Process.**

2,715,637—**Syntex (Mexico) — Δ^4 - 3 - Ketosteroids Process.**

2,715,640—**G. D. Searle—11-Hydroxy-3, 17-Dioxo-4, 6-Androstadiene.**

2,715,645—**G. D. Searle—N-Aryl and N-Aralkyl Derivatives of N-Dialkylaminoalkyl-Aryloxyalkanoamides.**

2,716,064—**M. K. Koffler (Israel)—Vitamin - A Preparations.**

2,716,122—**Nopco Chemical—N - Substituted - 4-Benzhydryl Ether-Piperidines.**

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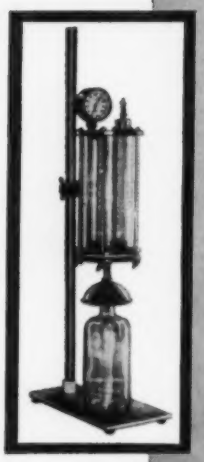

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2,716,125—Merck—3(β)-Acetoxy-16 (Δ-Acetoxy-isocaprooxy)-Allopregnanedione-11, 20.

2,716,130—Nat. Research Div. Corp. (London)—Pantothenic Acid-2^{a} Phosphate.

2,716,648—Cutter Labs.—Hydantoins.

2,716,651—Am. Cyanamid — 3 - (4 - Chloro - 7 - Hydroxy-3-Methylphthalide-3-) 5, 6, 8-Trihydroxy-*a* Tetralone.

2,717,210—M. C. deWitte (Holland)—Obtaining Carotene Concentrates.

2,717,227—H. L. Dawson et al—Composition Containing Nerve Tissue Extract.

2,717,228—Gillette—Hair Waving Composition Containing a Urea Compound and a Thiol Hair Reducing Agent.

2,717,251—Sandoz (Switzerland) — 1 - Methyl - 4-Amino-N'-Phenyl-N'-Thenyl-Piperidines.

2,717,267—Am. Cyanamid—High Density Calcium Pantothenate Production.

2,717,892,3—Bristol Labs.—Streptomycin Purification.

2,717,895—Merck—Gamma - Hydroxy - Tertiary Amines.

2,717,896—Am. Cyanamid—Certain 4(Lower Alkyl Carboxylic Acid Acyl) Carbethoxypiperazines.

2,717,899—S. E. Massengill Co.—Aminoalkyl and Quaternary Ammonium Alkyl Esters of o-Aroyl Benzoic Acids.

2,717,904,5—Merck — Quaternary Ammonium Benzoates.

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2,718,488—Abbott Labs. — Fumagillin Amine Salts.
2,718,519—Merck—Prepn. of 6-Methyl-Δ^6-Desoxymorphine.
2,718,520—Parke, Davis — Nitrophenyl - Oxazolines.
2,718,521—Parke, Davis—Epimerization of Propane Amino Diols.
2,718,523—A. E. Staley—Phytic Acid Preparation.
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2,719,149—Chas. Pfizer—Crystalline Potassium Penicillin Preparation.
2,719,150—Hoffmann-La Roche—Manufacture of Octahydroisoquinolines.
2,719,158—Ciba—1-Hydrazino-Isoquinolines.
2,719,161—Schenley Industries—Pyridine Thiosemicarbazone.
2,719,812—Merck—Stabilized Aqueous Solutions of Streptomycin.
2,719,837—Cutter Labs.—Carboxyalkyl Globin.
2,719,846—G. D. Searle—4[N-(β-Diethylaminoethyl) Anilino]-Pyrimidine.

Court Cases

U. S. 2,661,316—H. A. Martini, Cosmetic composition containing lanolin high concentration, filed Mar. 3, 1955, D. C., N. D., Ill. (Chicago), Doc. 55c346, Jesse Luther Peacock v. Consolidated Cosmetics, Inc. et al.
Reissue 23746 of U. S. 2,594,180, Killinger and Dick, Vaccine, filed March 23, 1955, Des Moines, Iowa, Fort Dodge Labs. v. Diamond Labs.
U. S. 2,628,184—R. R. Widmann, Composition of matter to decrease the circulation of blood and lymph in vascular and allergic disorders, Los Angeles, International Minerals & Chemicals Corp. v. Gordon E. Woodard et al. Injunction issued.

LABELING OF COSMETICS

(Continued from page 627)

placed thereon with such conspicuousness (as compared with other words, designs or devices, in the labeling) and in such terms as to render it likely to

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Coal-Tar Hair Dye—Special Provision

Section 601 (a) of the Act contains a provision which exempts a coal-tar hair dye from being deemed to be adulterated if the label bears the following legend conspicuously displayed thereon. "Caution—This product contains ingredients which may cause skin irritation on certain individuals and a preliminary test according to accompanying directions should first be made. This product must not be used for dyeing the eyelashes or eyebrows; to do so may cause blindness." The labeling, must, of course, bear adequate directions for such preliminary testing.

A coal-tar hair dye is considered to include all articles which contain any coal-tar color or intermediate which alters the color of the hair when such articles are applied to the hair as directed in the labeling or when applied in the customary or usual manner. The term hair dye does not include eyelash or eyebrow dyes.

Combination Packages

Where several cosmetics are packaged together in a single container such as a box—each individual cosmetic must be properly labeled and the principal panel of the box in which they are packaged must contain the name and address of the manufacturer or distributor and enumerate the individual items. For example—One has these items packaged in a telescope type gift box.

1—4 oz. jar cleansing cream
1—6 fl. oz. bottle of skin freshener
1—1 oz. jar foundation cream
1 lipstick

The top of the cover of the box would be labelled thus:

John Doe, Boston, Mass.
Cleansing Cream, wt. 4 oz.
Skin Freshener, 6 fl. oz.
Foundation Cream, wt. 1 oz.
1 lipstick

If the box in which the individual items are packaged is so constructed that the principal label of each individual product can be seen and read then it is not necessary to label the container in which they have been packaged.

In the case of these combination packages the required information may be printed on a pressure sensitive label and affixed to the cover of the box, or a tag containing the required information may be firmly secured to the container—the latter is often done in the case of "fitted luggage." The use of labels or tags as herein described meets the requirements of the law

(Continued on page 712)

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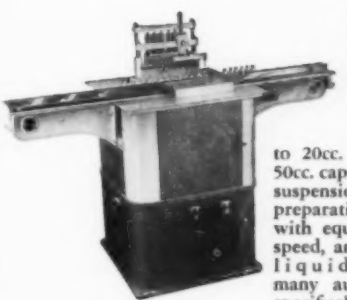

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(*Continued from page 710*)

and offers the advantage of easy removal, after purchase, on these gift items.

Alcohol Permit Number

Although the use of alcohol permit numbers on labels is not a provision of the Federal Food, Drug and Cosmetic Act, it is an important part of cosmetic labeling and is therefore included in this article. If the distributor of a product containing specially denatured alcohol is the manufacturer of that product and hence the possessor of the alcohol permit it is not necessary to include the alcohol permit number on the label. If, however, the distributor is not the manufacturer, then the alcohol permit number of the manufacturer must appear on the label, except that it may be omitted on containers of less than 4 fl. oz.

Misleading Containers

Section 602 (d) of the Act states that a cosmetic shall be deemed to be misbranded if its container is so made, formed or filled as to be misleading.

This means that there must be no depressed or false bottoms or empty spaces under covers, or more space for a puff in a powder box than is required, or any other condition which may mislead the purchaser into believing that he is getting more cosmetic than is actually the case. An extra large and prominent statement of the actual net contents is of no avail in offsetting a deceptive container charge. All containers must be filled full, otherwise they are deemed to be misbranded.

There are various odd shaped containers which are packaged in hexahedral cartons, leaving considerable space unused within the cartons. One may generally avoid a charge of deception by printing an actual size facsimile of the container on the carton.

PHYSIOLOGICAL DEODORANTS

(*Continued from page 615*)

The preparation must be unequivocally safe when used as intended on intact skin and also on abraded and razor-nicked skin where absorption may be unexpectedly high; it should also have a margin of safety to protect against too liberal use or accidental ingestion, and no systemic effects of the drug (dry mouth or dilation of pupils, for example) should ever be observed after normal use.

To serve its purpose, the preparation must contain adequate amounts of the active ingredient or ingredients to assure some measure of the claimed activity and the ingredient must be absorbable through the intact skin either through its intrinsic properties or with the assistance of the vehicle.

The preparation must naturally be in cosmetically acceptable form—cream, lotion or emulsion—and readily applied.

As a matter of fact, several of the anticholinergic drugs are available in cream and ointment preparations for use in treating excessive sweating of the hands and the feet; judging from clinical reports in the medical literature these preparations are far from being outstandingly effective. I have tried one of these preparations for under arm treatment and found it to be without action, possibly because the compound itself is one that seems not to be absorbed by intact skin.

At any rate, it seems likely that the choice of active compound will probably not be atropine itself since this compound is poisonous and active in very small doses; it would appear to be generally safer to use substances that could be administered in relatively larger amounts without adverse effects, to guard against inadvertent overdosage. As a matter of fact, this is a relatively small limitation since there are many compounds now buried in the chemical and clinical literature which have been discarded because of a low ratio of antispasmodic activity when compared with too high atropine-like activity which resulted in excessively dry mouth. Some of these compounds might well be reinvestigated for topical anticholinergic activity. Furthermore, as a class these compounds are nitrogenous bases, usually tested as their salts. If it is possible to make safe generalizations on the subject of percutaneous absorption, it seems that a water-soluble salt is less likely to be absorbed by the skin than a compound which has some degree of solubility in non-aqueous media. A simple approach is the testing of the free base or fatty acid salts, esters or ethers for skin absorption. As a matter of fact, there has been a report in the literature of absorption of atropine oleate by guinea pig skin. Unfortunately this is not necessarily true in the case of human skin and I found this compound to be doubtfully effective.

Absorption by the skin is naturally the key to this problem, and there is no question that it is possible to provide relatively high local concentrations in the subcutaneous tissues beneath the site of application without necessarily creating general systemic effects. I believe that the nature of the compound is more important in relation to absorbability than is the nature of the vehicle, yet the latter should not be neglected. Recent work has indicated that hyaluronidase may affect the skin and promote absorption and this also seems to be true for salicylic acid and thioglycollates. This approach may possibly be useful. I do not believe, however, that too much time should be spent upon animal experimentation after the early preliminary work because of differences (rather than the often emphasized similarities) between human and animal skin and responses to drugs.

It cannot be emphasized too much, however, that a research program of this type, looking into the percutaneous absorption and activity of potent drugs must have the two-fold purpose, one no more important than the other, to prove efficacy and safety.

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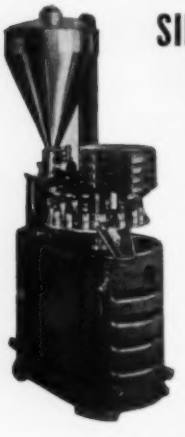

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SURFACTANTS IN SHAMPOO FORMULATIONS

(Continued from page 623)

be noted, however, that the active agent content of each type is not the same chemically and that the effectiveness therefore may vary. The technical difficulty of making each type is also a factor. No direct correlation between price and active agent content is therefore justified.

Before considering the composition of a shampoo, it might be well to consider its purpose, as the purpose determines the composition. The obvious purpose of a shampoo is that of cleaning the hair and placing it in a manageable condition. It may be less obvious that there is also an important psychological aspect. After all, hair can be cleaned in many ways, even by use of a solvent. The user of a shampoo, however, is involved not so much in a simple cleaning action as in a luxurious purification. For this reason, shampoos must be much more than cleaning agents. They must be attractive in appearance and in odor, they must be convenient to use, they must provide a rich, copious foam that is pleasant to handle, and they must cause a pleasant sensory impression on the skin. In short, the user does not measure effectiveness of a shampoo by a slide rule calculation of the soil removed but by a subjective opinion of visual, olfactory and tactile sensations. As to have-not, the shampoo must not have any eye or skin irritation properties.

Since cleaning is an important function of shampoos, it is to be expected that they will be based principally on surface active agents. Until less than 20 years ago, the entire market was held by the first synthetic surface active agent of them all, soap. Soap did, and still does, a satisfactory job of both cleaning and conditioning the hair. In hard water areas, however, the insoluble hard water soaps that form require an after-treatment for removal. This shortcoming provided the wedge for replacement of soap shampoos by those based on the newer surface active agents. The volume of pure soap shampoos has declined steadily and fairly rapidly. The volume of pure soap shampoos now sold is relatively small, but fairly large quantities of soap are still used in combination with synthetic detergents. There are two major types of such products. In one of these, soap is the principal surfactant but small amounts of appropriate synthetics are added to try to minimize the agglomeration of lime soaps. In the second type, the synthetic is the major cleaning agent but small quantities of soap are added for conditioning effects on the hair or for thickening properties in the shampoo concentrate.

Of the very large number of chemical types of surface active agents developed, very few have all the properties necessary for use in shampoos. Cationic types were used temporarily in a limited number of products. As a class, these products were found to have more eye and skin irritation than could be toler-

ated at the concentrations normally used in shampoo formulations. As a result, they have now disappeared from commercial use.

Among the many types of nonionics, the fatty acid amides are the only one finding a growing market as auxiliaries in shampoo formulations. They have the desirable properties of stabilizing the foam of the principal surfactant, of increasing the viscosity of the concentrate, and of providing some conditioning action. These will be discussed in some detail later. Practically all other nonionics, however, are low foaming materials and, in addition, usually have the undesirable property of reducing the foaming properties of other surfactants present. In an application where foaming is so important, this eliminates them from further consideration as major components. Relatively small quantities of selected nonionics are used, however, principally for their lime soap dispersing property.

Recently, amphoteric surfactants have been made available to formulators of shampoos. These products show interesting properties that are finding a place for them in shampoos in spite of their high price.

The bulk of the surface active agents used are of the anionic type. Of these, the most widely used are various salts of lauryl alcohol sulfate. The only other product commercially important is the monoglyceride of coconut oil. Both of these products will be discussed in some detail later. It is interesting to note, however, that only four surface active agents of all possible types available have proven satisfactory for shampoos, and all four of these are derivatives of fat. Even so, relatively small a change as replacing the lauryl alcohol used in the preparation of lauryl sulfate with a tridecyl alcohol from petroleum sources makes the product unsuitable for use in shampoo. This need for fatty materials may be related to the sensory qualities mentioned previously.

A survey of preference by the type of shampoo was included in a more general survey of beauty products made by the Dell Modern Group. The trend in preference is shown in Table 3. The survey total is more than 100 per cent as some individuals used more than one type.

TABLE 3
SHAMPOO TYPE USED

Type	1953	1955
Liquid	50.9 per cent	54.9 per cent
Lotion	23.1 per cent	25.9 per cent
Cream	33.8 per cent	28.0 per cent
	107.8 per cent	108.8 per cent

Table 4 shows the type of surface active agent used in each type of shampoo formulation and indicates the properties contributed by each of the ingredients in the shampoo. It must be emphasized that this table does not indicate the formulation for any given shampoo. For example, some cream shampoos are based

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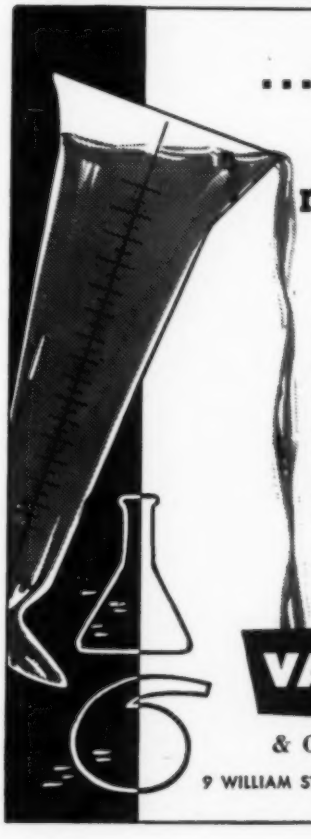

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on lauryl sulfate plus soap, others on lauryl sulfate plus alkylolamide and some on lauryl sulfate plus both soap and alkylolamide. The table summarizes the total use, not any one formulation.

The estimated quantity of each surfactant used is also shown in Table 4. These figures were obtained from estimates of the total sales of each major brand of shampoo multiplied by the proportion of the surfactant present in its formulation. Only the totals are shown because of the confidential nature of the information. The volumes of all surface active agents given are on a 100 per cent active agent basis.

TABLE 4
SHAMPOO INGREDIENTS

Type	Market Per Cent	Market Millions of Lbs.	Ingredient	Properties Required												Volume Used Millions of Lbs. (100 per cent basis)
				Detergency	Effective in Water	Foaming	Foaming Stabilizer	High Could Pt	Low Cloud Pt	Manageability of Hair	Opacity	Pearliness	Stability to metal	Substantivity	Thickening	
Liquid	50	23.1	Lauryl Sulfate	X	X	X			X					X		1.8
			Monoglyceride	X	X	X			X	(X)				X		1.3
			Soap	X		X			X	(X)				(X)	X	1.6
			Alkylolamide	(X)			X								X	0.3
			Conditioner							X				X		0.15
Lotion	24	11.1	Lauryl Sulfate	X	X	X		X					X			1.7
			Alkylolamide	(X)			X			(X)				(X)	X	0.2
			Conditioners							X	X	X		X		0.1
Cream	26	12.0	Lauryl Sulfate	X	X	X		X					X			2.4
			Alkylolamide	(X)			X							(X)	X	0.2
			Soap	X		X			X	(X)	X			(X)	X	0.3

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The total volume of each of the surfactants is summarized in Table 5.

TABLE 5
VOLUME OF SURFACTANTS USED IN SHAMPOOS

Type	Millions of Pounds (100 per cent active)
Alcohol Sulfates	5.9
Soap	1.9
Monoglyceride	1.3
Amide	0.7
	9.8

It should be noted that all of this market is not available to a potential supplier. The use of monoglyceride has been patented and all of the present material used in shampoos is manufactured by the company that uses it. A fairly large part of the lauryl sulfate market, perhaps 25 per cent of the total, is also captive.

A brief discussion of some of these principal surface active agents is presented below as general background information.

Lauryl Sulfates

In the past few years the quality of lauryl sulfates available has steadily improved although the price has decreased over 20 per cent in the same period. Since there has been no decrease in the cost of raw materials, the price decrease has been due entirely to intensified competition. It does not seem likely, however, that further decreases can be expected in the near future, certainly not without driving marginal producers out of business.

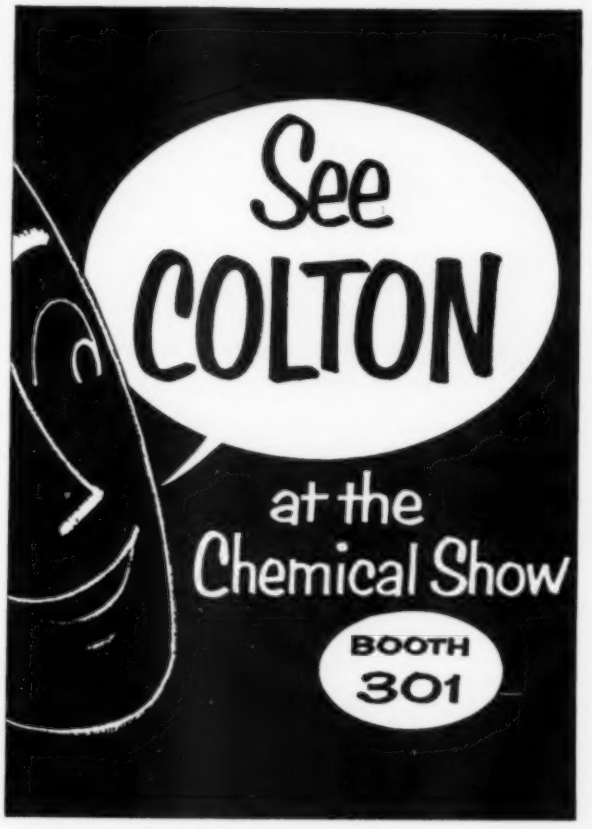
The principal product used is the sodium salt because of the ease of viscosity control and low price compared with other salts. Where cloud point is an important consideration, as in clear liquid shampoos, salts of higher solubility such as triethanolamine or diethanolamine are preferred. The ammonium salt, which has comparable solubility and a lower price, is sometimes used instead of the amine salts. In the past year, the magnesium salt has received increasing attention.

Alkylolamides

As the alkylolamides are readily prepared in inexpensive equipment, they are offered in a variety of forms by several manufacturers. As competition has become more intense, the price has decreased substantially both through a lower cost per pound and through an increase in the active agent content.

The wide variety of chemical compositions of alkylolamides have given the formulator increased flexibility in selecting a suitable product. Although all these products are generally similar in composi-

(*Continued on page 719*)



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(Continued from page 717)

tion, even slight changes result in important differences in performance. An amide that works well in one formulation may be totally unsuitable in a formulation only moderately different.

The amide offers important advantages as a minor component by providing substantially equal foaming of such shampoos in both hard and soft water, in thickening fatty alcohol sulfate shampoos and in being slightly substantive to the hair. This latter property increases manageability.

Monoglyceride

The monoglycerides are excellent raw materials for shampoos, but since they are not available for general use, their properties will not be discussed in this paper.

Soaps

As mentioned previously, the principal objection to soap shampoo has been their performance in hard water areas. Combination with synthetic surface active agents has overcome this deficiency to a considerable extent. Soap shampoos have been particularly successful for use on dry hair.

There has been some objection to soap shampoos on the basis of appearance. Most of the earlier products did not provide a sparkling clear appearance. This has been partially eliminated by the use of potassium and triethanolamine soaps.

Care must be taken to avoid the presence of short-carbon chain fractions in the soap as these are said to be irritating to the scalp.

Manufacturers of all types of surface active agents, including those discussed here, were recently presented by Dr. Price in "Chemical Week" (Oct. 22, 1955) and by Dr. John McCutheon in a series completed in the October issue of "Soap & Chemical Specialties."

Trends

The principal trend evident in shampoo formulations today is toward surfactants which have a milder effect on the skin. Complete elimination of any sting if the product gets into the eye is the objective. Unless the product is also non-harmful to the eye, some sting as a warning may be desirable, however.

Having obtained most of the market with the nation's women, some manufacturers are investigating the male market. It seems likely that this will involve principally a change of perfume, color and packaging rather than a basic change in formulations.

It is not likely that the problems of corrosion will confound manufacturers of aerosol shampoos much longer. Improved can coatings, elimination of metal

(Continued on page 721)

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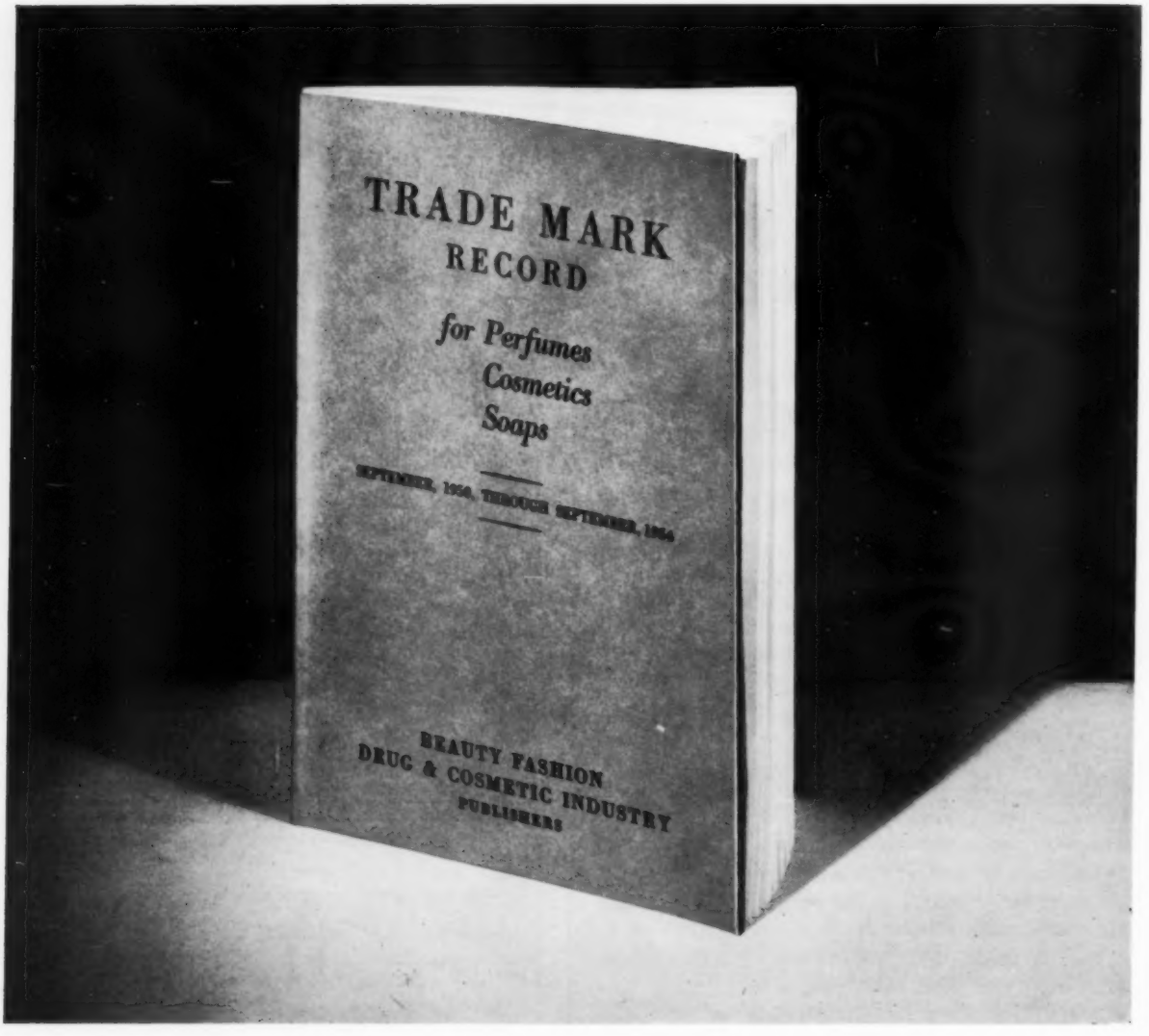

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(Continued from page 719)

valves and perhaps improved corrosion inhibitors should make such products feasible in the next two years. It seems certain that the competitive pressure will continue to be so great that changes in formulation will continue at the present rate for some time, particularly in the investigation of new products which will provide some property to catch the prospect's fancy—and his dollar.

Easiest of all to predict is the continuance of change.

PROTECTIVE HAND PREPARATIONS

(Continued from page 619)

these bactericides it is all the more important to check for possible irritations that may result because of their inclusion. It is completely possible however to formulate such a product with no greater incidence of irritation than normally encountered and to act as a positive safeguard against infections being introduced through small and often unnoticeable abrasions on the hand.

Another type that has recently appeared have been the emulsions dependent on quaternary ammonium compounds as emulsifiers or as bacteriostatic agents. These are extremely interesting preparations because they have a pH more nearly approximating that of the skin and because of the other claims made for them. It is true that there is a stigma attached to the use of quaternary compounds because they are generally considered more irritating than anionic or non-ionic emulsifiers. In answer to this however there is evidence that shows that many quaternary compounds containing an aliphatic chain of approximately 18 carbon atoms have little vestige of this irritational property. Under any circumstances, it is well to check this clinically since the investigational results on the pure material sometimes does not agree with results in the preparation into which it is incorporated.

The inherent incompatability of cationic emulsifiers with aniconic agents such as soaps would cause one to think that it would extend the life of a hand lotion film against a water soap mixture to a greater degree than would a soap or other compatible emulsifiers. This inherent substantivity to proteins would also extend this life.

It is further possible to use many of the agencies already discussed in conjunction with each other so that a preparation containing several protective barriers may be produced and further enhance the protective function of these preparations. However, care should be taken that incompatible mixtures are avoided because of the inherent danger involved of neutralizing the effect of one with another, leaving no protective effect. This incompatibility may not become obvious immediately but only after several months. There is therefore no substitute for a suitable shelf life test combined with the regular physical and chemical tests.

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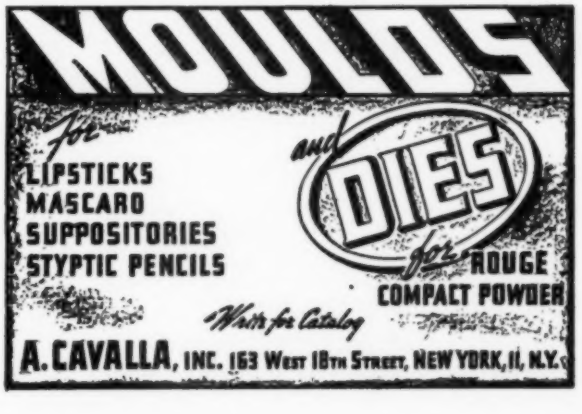

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Drug & Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1955

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, Frank S. Child, 101 W. 31 St., New York, N. Y.; Business Manager, Frazer V. Sinclair, 101 West 31 St., New York, N. Y.

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ADVERTISING INDEX

American Aromatics, Inc. 710
American Cholesterol Products, Inc. 696-697
American Cyanamid Company—Fine Chemical Division ..... Between 588-589
Anchor Hocking Glass Company 654-655
Aromatic Products, Inc. ..... Facing 604
Atlas Powder Company 591

Baker & Bros., H. J. 603
Baker Chemical Co., J. T. 658
Barr & Company, G. 652
Beauty Fashion 604
Bertrand Freres, Inc. 608
Bush & Co., Inc., W. J. 711

Camilli, Albert & Laloue, Inc. 724
Carr-Lowrey Glass Company 660
Cavalla, A., Inc. 721
Chaleyer, Ph., Inc. 687
Chemical Industries Exposition 715
Chiris Co., Inc., Antoine 699
Colton Company, Arthur 672, 717
Continental Can Company 636
Continental Filling Corporation 676
Croda Incorporated 694

Demuth Glass Works, Inc. 644
Devold Oil Co., Peder 716
Distillation Products Industries 666
Dow Chemical Company, The. Facing 612, Pg. 662
Dreyer, Inc., P. R. ..... Between 588-589
Dunkel & Company, Inc., Paul A. 698
Durlin Co. ..... Facing 605

Eastman Chemical Products, Inc. 700
Emery Industries 594
Ertel Engineering Corp. 703

Fairmount Chemical Co., Inc. 723
Felton Chemical Co. 602
Firmenich Incorporated ..... Cover 4
Florasynth Labs., Inc. 690
Formulation of Cosmetics and Cosmetic Specialties 596
Fritzsche Brothers, Inc. ..... Between 688-689

Gair Co., Inc., Robert ..... Facing 649
General Chemical Div., Allied Chemical & Dye Corp. 646-647
Givaudan-Delawanna, Inc. ..... Between 612-613, Pg. 680
Glass Products Company 714
Gottscho, Inc., Adolph 716

Halby Products Co. 708
Haring Equipment Corp. 714
Hazel-Atlas Glass Company ..... Facing 648
Heyden Chemical Corp. 610
Hoffmann-La Roche, Inc. 581, 682
Hormann & Co., Inc., F. R. 708
Huisking & Co., Charles L. 716

C. E. Ising Corporation 721

Kelco Company 588
Kimble Glass Company 638
Kolar Laboratories, Inc. 601
Kolmar Laboratories 598

Lautier Fils 693
Lueders & Co., George 590

Mallinckrodt Chemical Works ..... Facing 613
Maryland Glass Corp. ..... Facing 633
Mathieu, Inc., Charles 719
Maywood Chemical Works 597
Merck & Co., Inc. 600, 656
Morningstar, Nicol, Inc. 593

New Jersey Zinc Co., The 702
New York Quinine & Chemical Works, Inc. 599
Norda Essential Oil & Chemical Co. ..... Cover 2
Nysco Laboratories, Inc. 723

Old Empire, Inc. 712
Orbis Products Corporation ..... Facing 665
Owens-Illinois Glass Company 630-631

Pantone Press 717
Parsons-Plymouth Inc., M. W. 686
Penick & Co., S. B. 592
Pennsylvania Glass Products Co., Inc. 642
Pennsylvania Refining Co. 705
Perry Brothers 686
Pfaltz & Bauer, Inc. 723
Pfizer & Company, Inc., Charles 584-585
Plax Corporation ..... Facing 640
Pneumatic Scale Corp., Ltd. 670
Poly Perm Printing, Inc. 695
Popper & Sons, Inc. 711
Potdevin Machine Co. 712
Precision Valve Corporation 634
Prince George Hotel 710
Private Label Cosmetics 707
Progressive Labeling Machine, Inc. 723

Reading Testing Laboratories, Inc. 723
Reheis Co., Inc. 709
Richford Corporation 650
F. Ritter & Company 713
Rohm & Haas Company ..... Facing 664
Roure-Dupont, Inc. ..... Between 596-597

Santonin Company of America, Inc. 716
Seabrook Hotel 706
Sheffield Tube Corp., The ..... Facing 641
Shell Chemical Corporation 606
Shulton, Inc. ..... Facing 589
Sindar Corporation 684
Sonneborn Sons, Inc., L. 678
Standard Pharmacal Company 713
Sterwin Chemicals, Inc. 583
Stokes Machine Co., F. J. 668
Stokes & Smith Company 674
Synfleur Scientific Laboratories, Inc. 595

Tamms Industries, Inc. 723

Ungerer & Company ..... Cover 3
U. S. Bottlers Machinery Co. 701
U. S. Pharmacopeia 711

Van Ameringen-Haebler, Inc. ..... 586-587, Pg. 721
Van Dyk & Company, Inc. 715
Verona Chemical Company ..... Facing 588
Vitamerican Oil Corp. 719

Wayne Paper Box and Printing Corp. 706
Welch, Holme & Clark Company 704
Will & Baumer Candle Co., Inc. 589

UE
.....705
.....686
.....723
.....584-585
.Facing 640
.....670
.....695
.....711
.....712
.....634
.....710
.....707
.....723
.....723
.....709
.....650
.....713
.Facing 664
een 596-597
.....716
.....706
.Facing 641
.....606
.Facing 589
.....684
.....678
.....713
.....583
.....668
.....674
.....595
.....723
...Cover 3
.....701
.....711
7, Pg. 721
.....715
Facing 588
.....719
.....706
.....704
.....589
55: 77, 5

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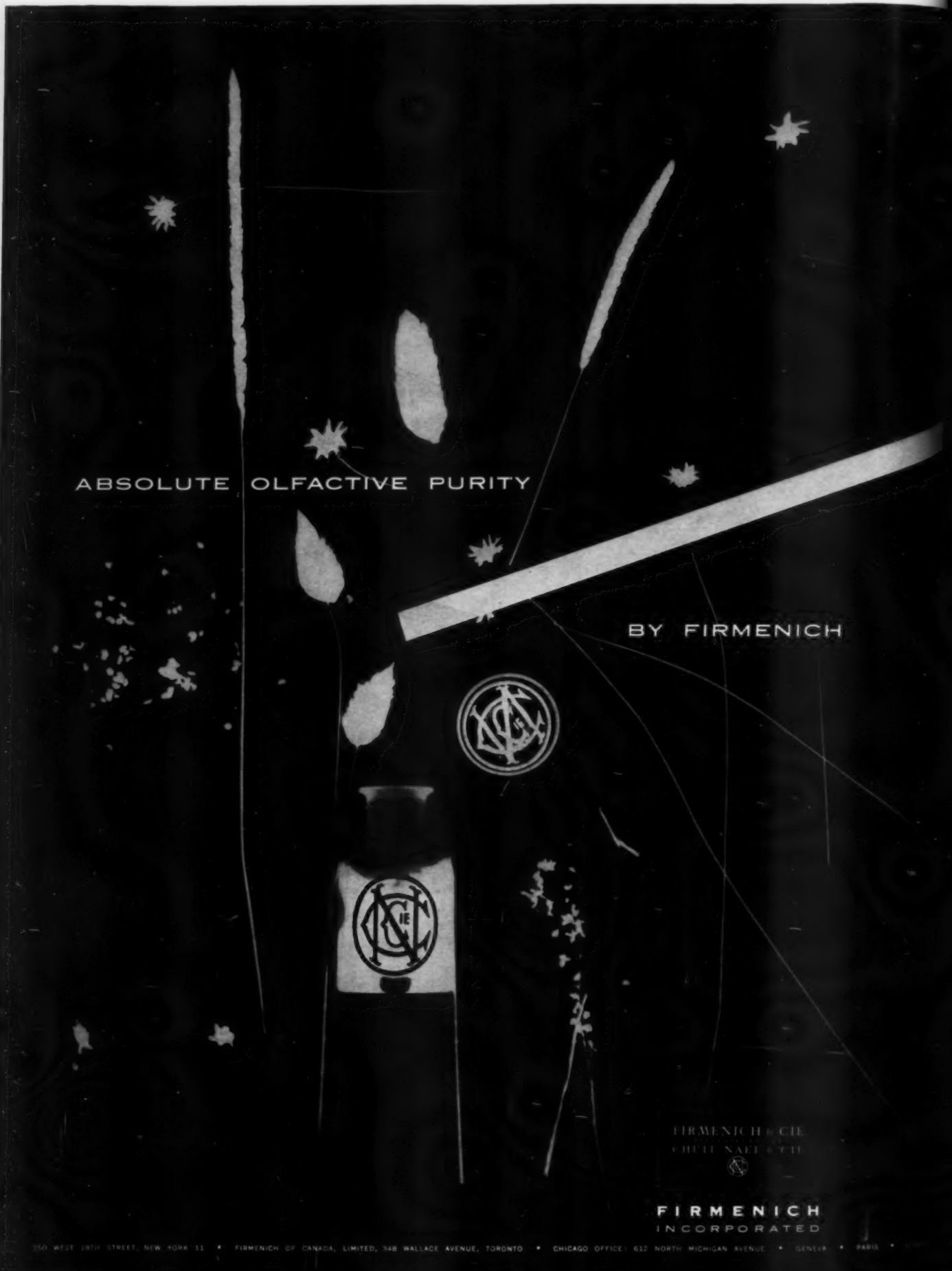
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